M2M-710D

User's Manual

Version 1.01

http://www.icpdas.com

Warranty

All products manufactured by ICP DAS are under warranty regarding defective materials for a period of one year from the date of delivery to the original purchaser.

Warning

ICP DAS assumes no liability for damages resulting from the use of this product. ICP DAS reserves the right to change this manual at any time without notice. The information furnished by ICP DAS is believed to be accurate and reliable. However, no responsibility is assumed by ICP DAS for its use, or for any infringements of patents or other right of third parties resulting from its use.

Copyright

Copy right 2009 by ICP DAS. All rights are reserved.

Trademark

The names used for identification only may be registered trademarks of their respective companies.

List of Revision

Date	Author	Version	Revision
2009/03/13	Jiunan	1.00	Release
2010/1/26	Jiunan	1.01	Add VxComm function

Table of Contents

1. Introduction 1
1.1 Features 4
1.2 Hardware Specifications 5
1.3 Statement of connection mode 6
1.4 Applications 6
2. Hardware 8
2.1 M2M-710D 8
2.2 Wiring Instructions 9
2.3 Init Switch and Init Pin 11
2.4 5-Digit 7 Segment LED Display 12
3. Configuration and Operation with Web Browser 17
3.1 Connection Setting 17
3.2 Web Configuration—function menu 22
3.3 Web Configuration—setup page 24
3.3.1 Login 24
3.3.2 User Account 24
3.3.3 Standard Config 24
3.3.4 DDNS Config 27
3.3.5 Com Port Config 30
3.3.6 Operation Mode 31
3.3.7 Information 32
4. Application 33
5.VxComm Applications(Firmware ver:V13 or latter) 35
5.1 Introduction 35
5.2 Architecture 35
5.3 Installing the VxComm Driver 36
5.4 VxComm communication test 40
6. Troubleshooting 42
7. FAQ 43
8. Dimensions 46
9. Frame Ground 48

1. Introduction

The M2M-710D module is specially designed for the remote maintenance solution. It can be used to maintain the remote machines with other module(ex：M2M-710D、M2M-711D、M-4132…etc) through Ethernet. Servicemen can maintain remote machines as real as he has been on the spot. That can not only reduce the business travel cost, but also save the time of waiting for maintaining equipments. The remote maintenance solution redefines maintenance service that we pass understood, and the equipment manufacturer may solve the problem to grasp the customer demand and the opportunity rapidly.

M2M-710D also integrates the Virtual com technology. That can resolve the insufficiency of real com port in PC. By applying this technology, the maintenance man can take the remote maintenance or monitor whenever the time is and whatever the place is.

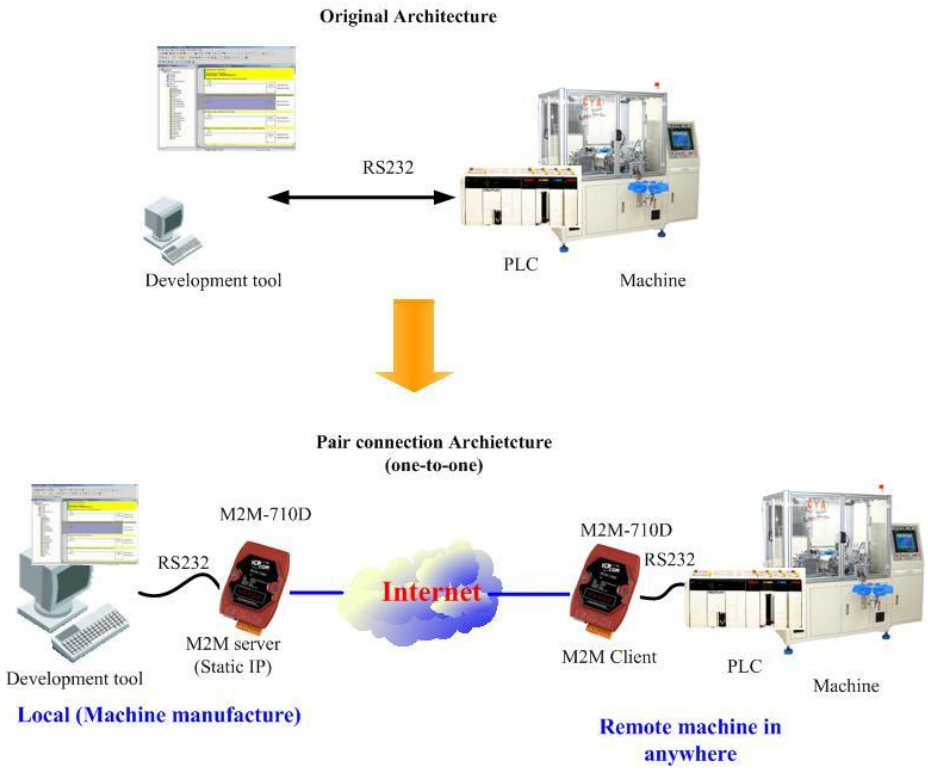


Figure 1 frame of maintenance remote machine

It is more flexible to management the remote machines with M-4132. The application frame is as following:

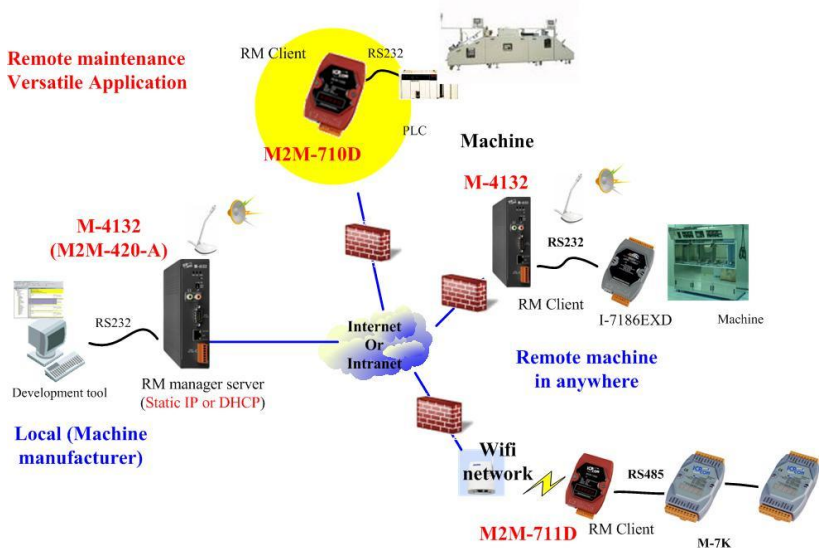


Figure 2 apply with M-4132

Besides the above function, the M2M-710D may help the serial system to upgrade to internet frame without changing any software.

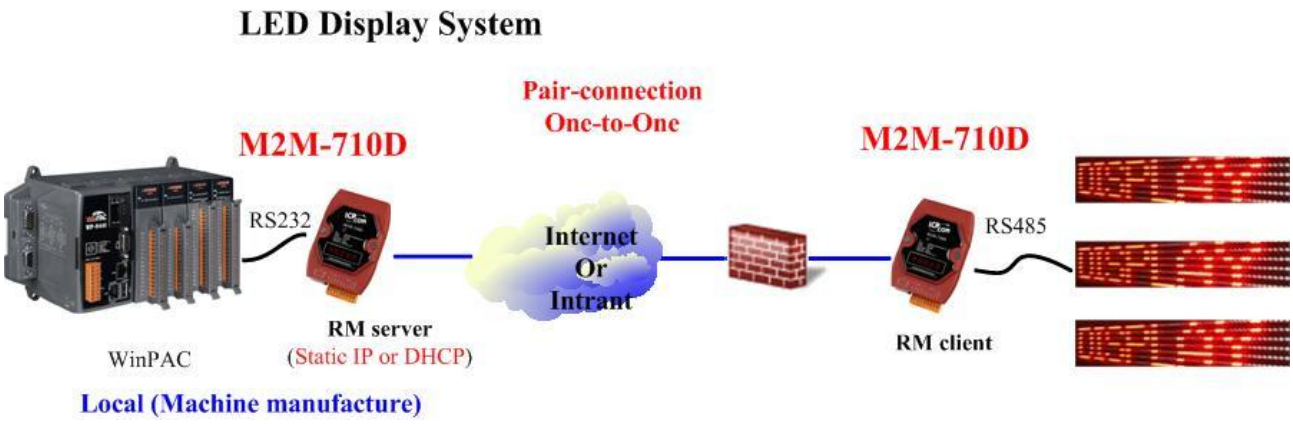
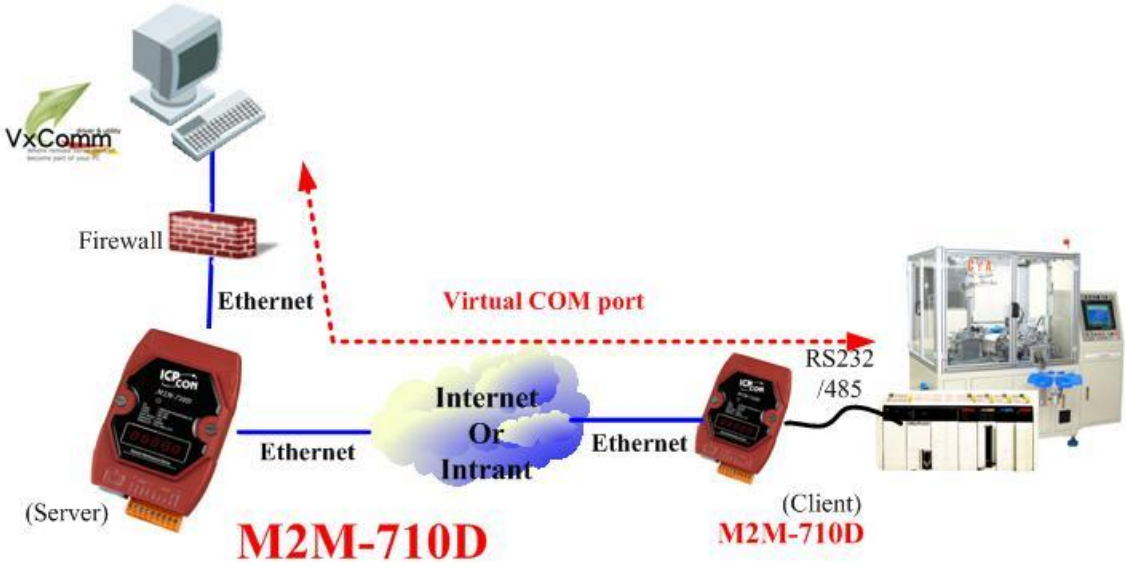


Figure 3 example of serial communication

The remote system includes a server, and more than one for clients. Server must have physical IP address, and adjust the firewall before the Server module is applied appropriately. Users can provide the remote maintenance service real time under the stable network communication.

M2M-710D integrates the Virtual com technology. That can resolve the insufficiency of real com port in PC. By applying this technology, the maintenance man can take the remote maintenance or monitor whenever the time is and whatever the place is.



1.1 Features

- Provide pair connection (RS-232,RS-485) on network
- Support Server and Client communication mode
- Support VxComm function in server mode
- Be applied with other M2M products (M-4132, M2M-720-A
- Support RS-232 or RS-485 serial communication ports
- Built-in self-tuner ASIC chip for RS-485 port
- Web-based administration
- Built-in MiniOS7 OS to keep off the computer virus
- Ethernet Protocol: TCP, UDP, IP, ICMP, ARP, RARP
- Provide dynamic DNS function
- Supply static IP/DHCP
- Supply DDNS(Dynamic DNS)
- Quick start
- 5-Digit 7 Segment LED Display
- EMI, RoHS compliance

1.2 Hardware Specifications

CPU	80186, 80 MHz
SRAM	512 KB
Flash Memory	Flash ROM: 512 KB ; Erase unit is one sector (64 KB) ; 100,000 erase/write cycles
EEPROM	16 KB; Data retention: 40 years; 1,000,000 erase/write cycles.
Built-in Watchdog Timer	Yes
Communication Interface	
COM1	RS-232(RxD, TxD,RTS,CTS,DTR,DSR,GND); None-isolation
COM2	RS-485(DATA+, DATA-); None-isolation
Ethernet Port	10/100 Base-TX
COM Port Formats	
Data Bit	7, 8: for COM1 and COM2
Parity	None, Even, Odd, Mark, Space
Stop Bit	1: for COM1, COM2
Baud Rate	115200 bps Max.
Mounting	
Din Rail Mount	Yes
Wall Mount	Yes
LED Display	
5-Digit 7 Segment LED Display	Yes(for D Version)
System LED Indicator	Yes
Mechanism	
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimension (W x L x H)	123 mm x 72 mm x 33 mm
Operating Environment	
Operating Temperature	-25 ~ +75 ℃
Storage Temperature	-40 ~ +80 ℃
Power	
Protection	Power Reverse Polarity Protection
Required Supply Voltage	10 ~ 30 V_{DC} (non-regulated)
Power Consumption	2.7 W for M2M-710D

1.3 Statement of connection mode

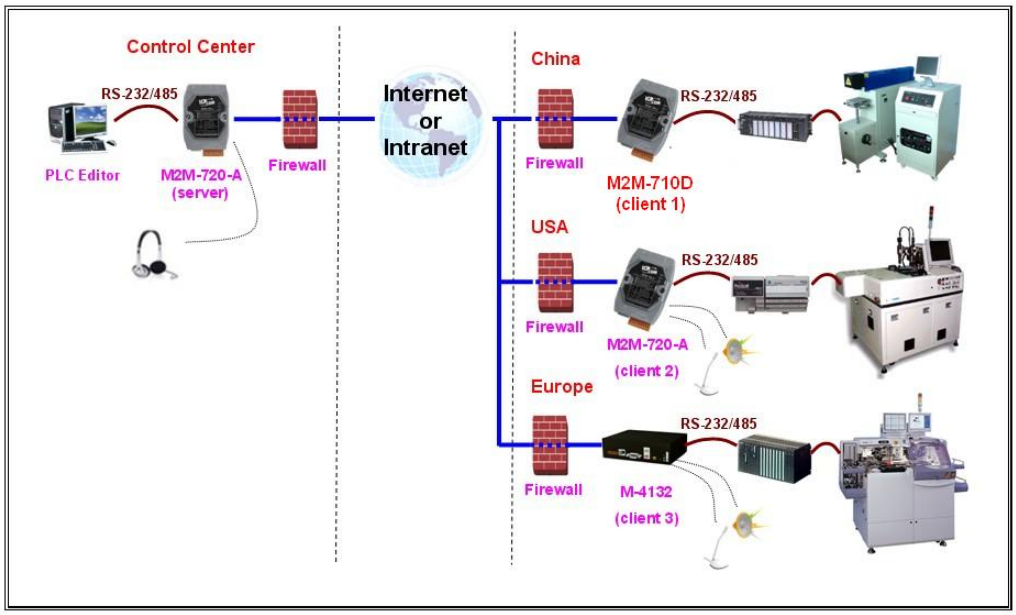
M2M-710D has two kind of communication mode. They are Client and Server the mode respectively.

Client mode: In this mode, M2M-710D is set as the client mode, which may connect with remote M-4132, M2M-710D or other supporting RM server products. If host name of client is the same one as the setting name in server mode, the communication will build up quickly.

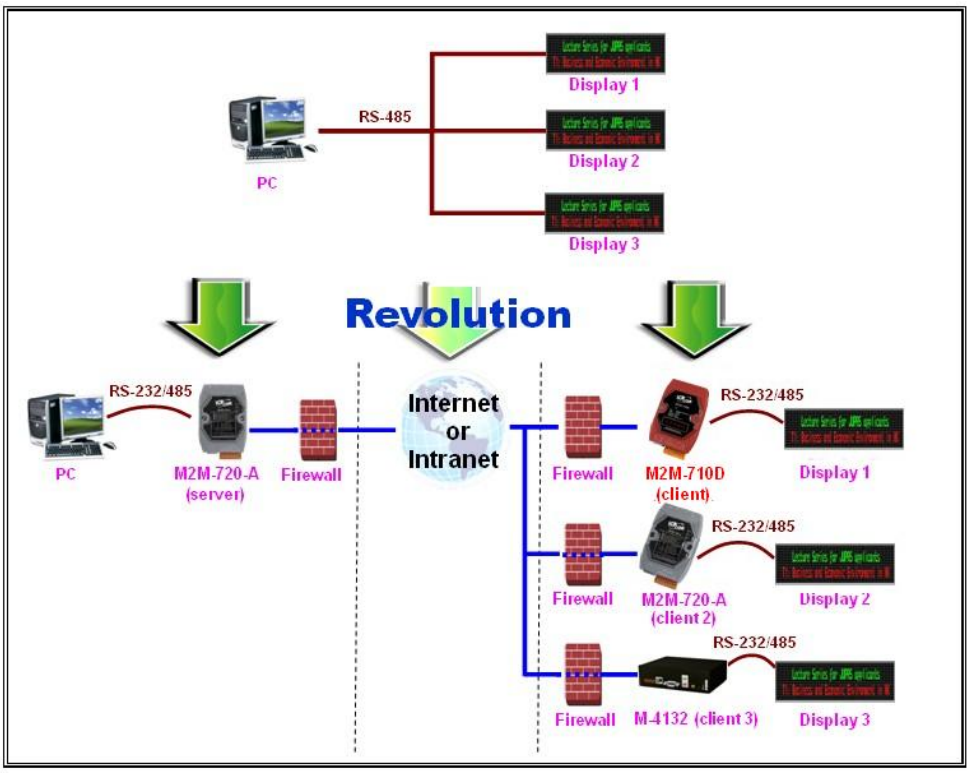
Server mode: In this mode, M2M-710D is set as the server mode, which can accept connection from M-4132,M2M-710D or other RM client product. But it just only accepts one client. If multiple clients are set the same host names, the first connection to the server is depending on which connection is to the server firstly. VxComm is provided in this mode.

1.4 Applications

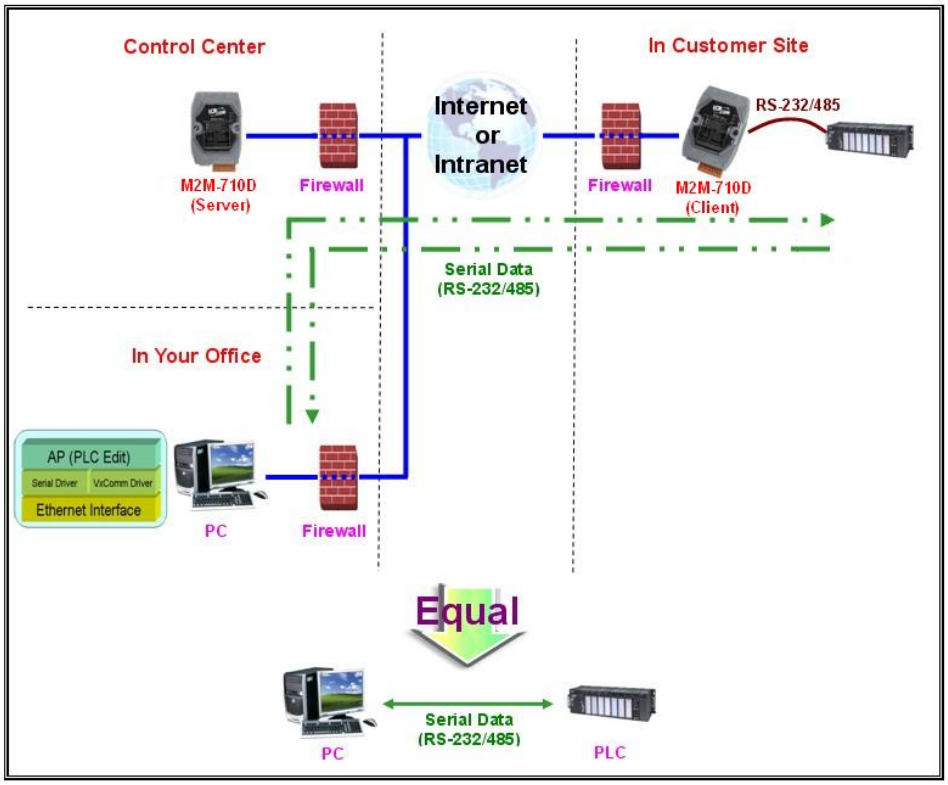
Remote Maintenance: Build the remote maintenance system all over the world



Serial application revolution: Upgrade the original serial application to network



Virtual Com: Remote maintenance by Virtual Com technology



2. Hardware

2.1 M2M-710D

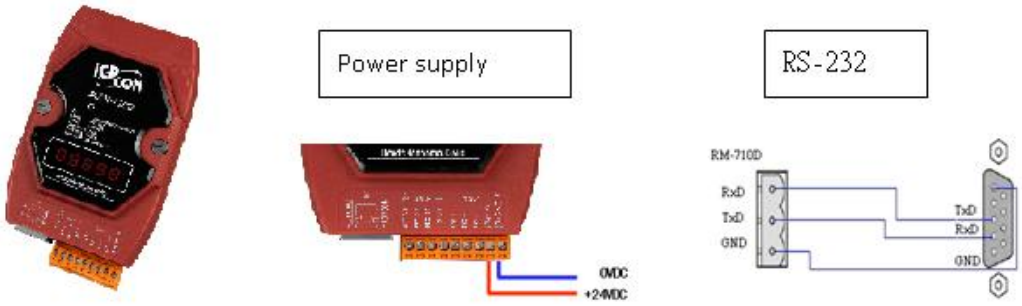


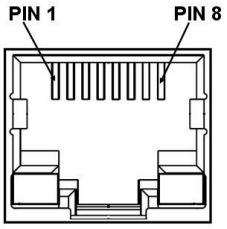
Figure 4 Hardware

M2M-710D Pin definition

Pin	Name	Description
1	CTS1	Clear to Send
2	RTS1	Request to Send
3	RxD1	Receive Data
4	TxD1	Transmit Data
5	INIT	Init Pin
6	DATA+	Data+ of RS-485
7	DATA-	Data- of RS-485
8	Vs	Vs of Power Supply
9	GND	GND of Power Supply

8-PIN of RJ-45 definition

Pin	Name	Description
1	TX+	TX+ output
2	TX-	TX- output
3	RX+	RX+ input
4	-	N/A
5	-	N/A
6	RX-	RX- input
7	-	N/A
8	-	N/A



2.2 Wiring Instructions

The communication interface includes RS-232, RS-485 and Ethernet. The wiring instructions are described in section 2.2.1, 2.2.2 and 2.2.3.

2.2.1 RS-232 connection

There are two types of RS-232 ports, DTE (Data Terminal Equipment, like PC, Serial Printers, PLC, and Video Cameras) and DCE (Data Circuit-Terminating Equipment, like modem) type, and that the signal names and pin numbers are the same, but signal flow is opposite!

The M2M-710D module is a DTE and the user can uses “3-wire” RS-232 or “5-wire” RS-232 to connect. When connecting the M2M-710D to a DCE device, the user just needs to match the signal names. When connecting the M2M-710D to a DTE device, the user needs to use a crossover cable (TX crosses to RX, GND to GND), as shown in the figure.

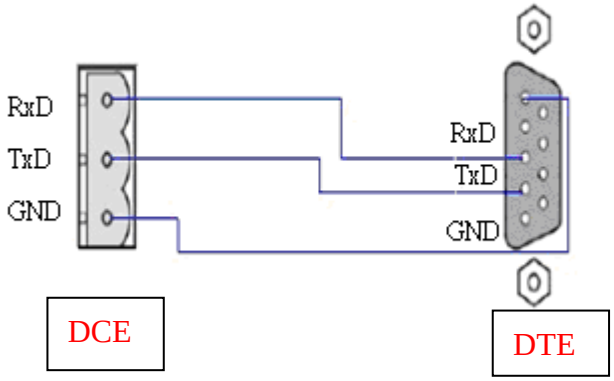


Figure 5 connection of RS-232 with 3-write

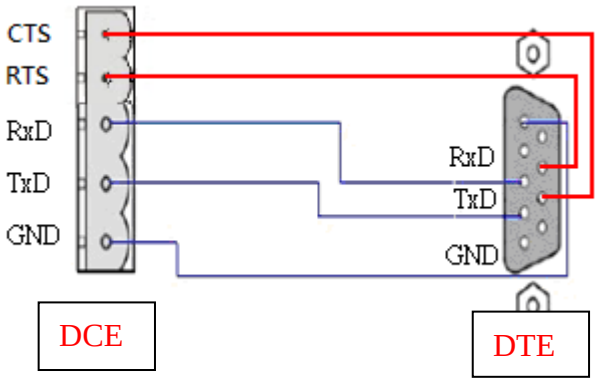


Figure 6 connection of RS-232 with 5-write

2.2.2 RS-485 connection

The RS-485 wiring diagram is shown in figure 7.

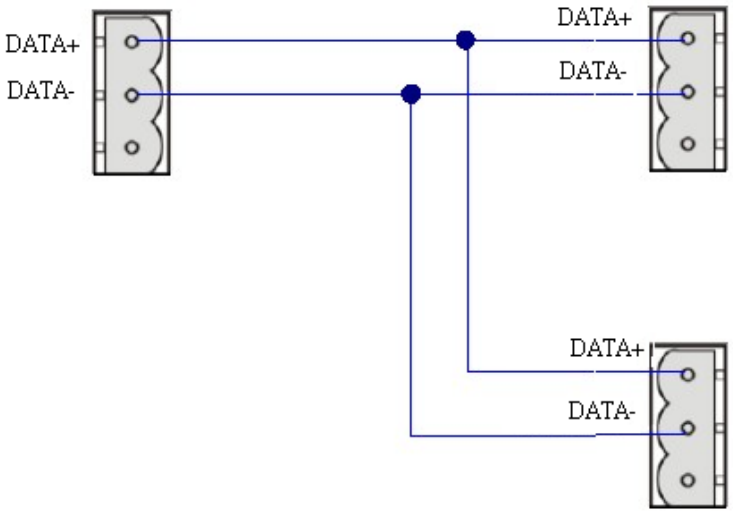


Figure 7 connection of RS-485

2.2.3 Ethernet connection

When the M2M-710D works as a client, it should adjust the firewall before the M2M-710D module appropriately is used or else the client will not connect to the server.

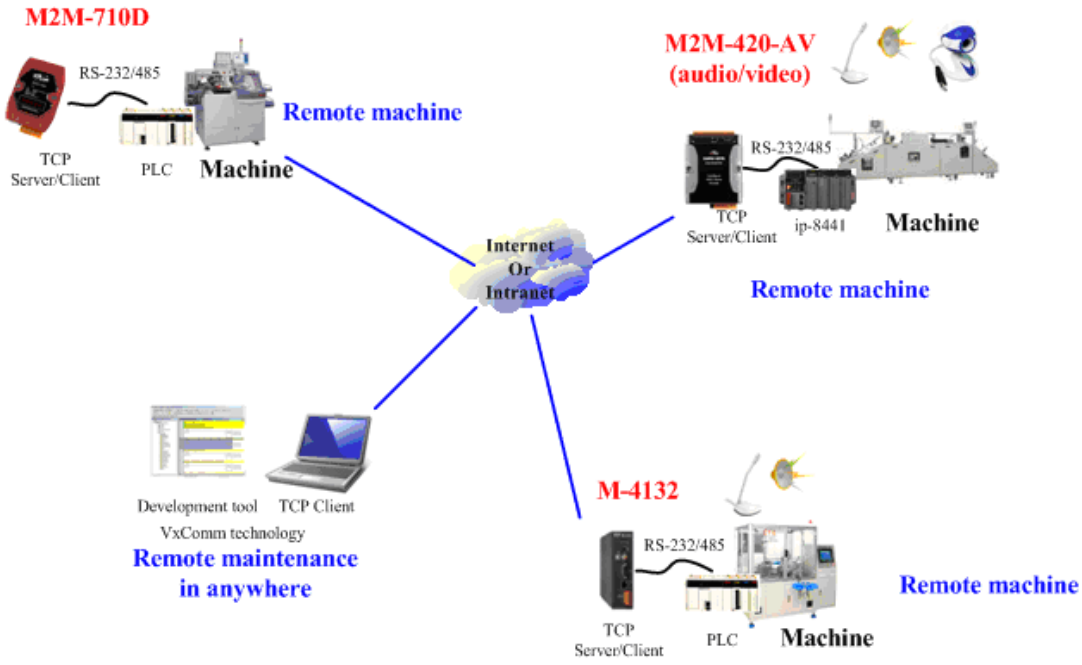


Figure 8 Ethernet connection

2.3 Init Switch and Init Pin

There are an Init switch and Init Pin inside M2M-710D to make it into initial mode. If Init Pin connects to GND or Init Switch is selected for init mode, system will clear all EEPROM information. The M2M-710D will restore originally setting.

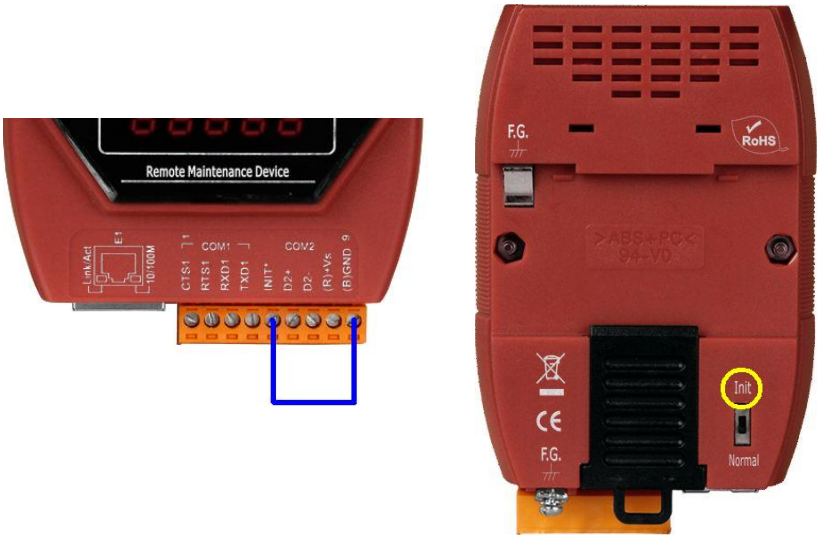


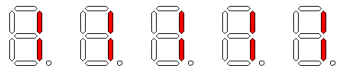
Figure 9 Init Pin and Init Switch

2.4 5-Digit 7 Segment LED Display

The M2M-710D is built-in 5-Digit 7 segment LED Display. User can get the system information from the starting process.

Start Display (server mode):

It would show the local IP (if the setting is DHCP ,it will display "DHCP" firstly), port of communication, and the setting of comport.

Start Display	Information
	Server Mode
	Show local IP step by step
	Show listen port
	Show Comport configuration C#:1/2,COM1/COM2 Baud Rate: 300 ~ 115200 data: 7 or 8 Parity: 0(None) or 1(Even) or 2(Odd) Stop bit: 1

Listen:

When M2M-710D starts successfully in server mode, it would be in listen mode to wait the connecting from the client.

Listen	Information
	Listening

Serial communication:

When the client connects to the M2M-710D, it will display the information of comport.

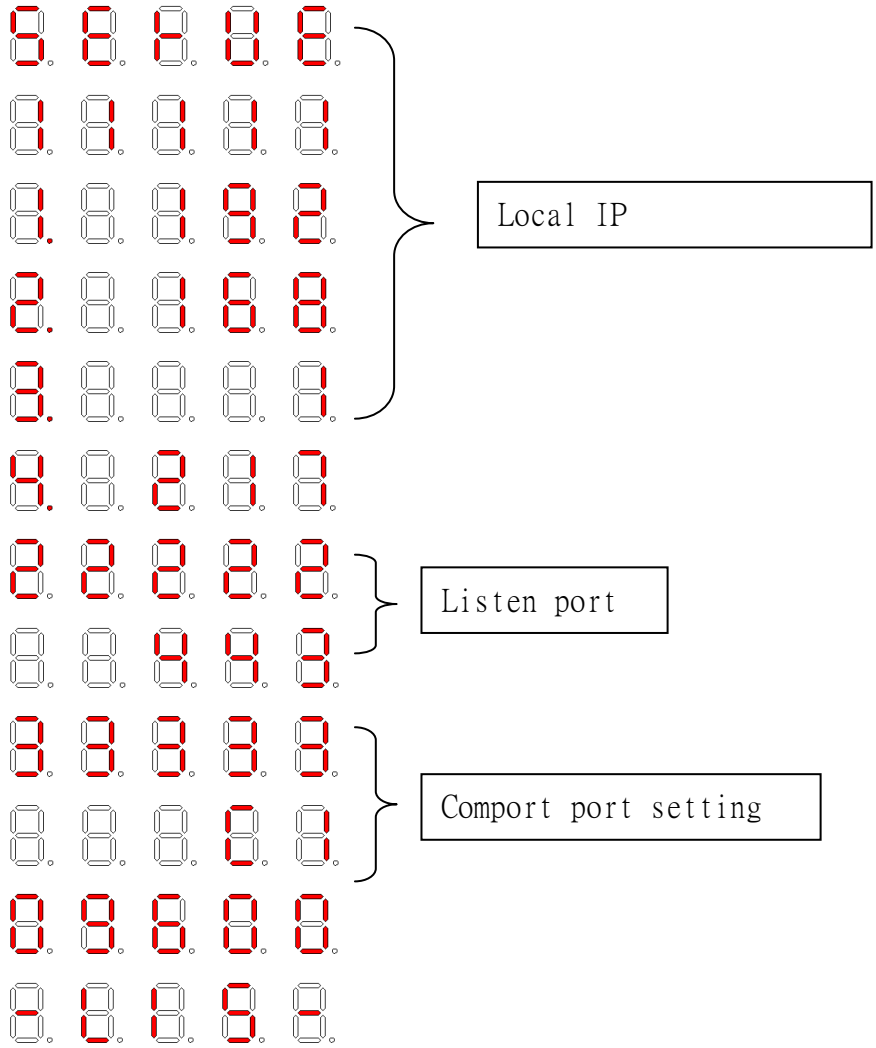
Serial communication	Information
	Port:1 Date:8 Parity: none Stop bit:1
	Baudrate:9600

Ex:

Server information

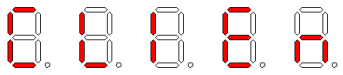
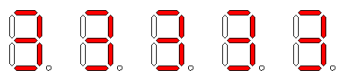
IP	192.168.1.217
Listen port	443

Baud rate	9600
Date	8
Parity	none
Stop bit	1



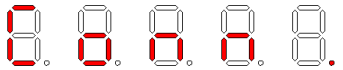
Start Display (client mode):

It would display the local IP(if setting is DHCP, it will display "DHCP" firstly), server IP （M2M-710D can get host IP by server's name）,port of communication, and setting of comport.

Start Display	Information
	Client Mode
	Show local IP step by step
	Show Server IP step by step
	Show connected port
	Show Comport configuration C#:1/2,COM1/COM2 Baud: 300 ~ 115200。 Data : 7 or 8 Parity: 0(None) or 1(Even)or 2(Odd)。 Stop bit: 1

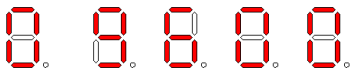
Login server:

When M2M-710D starts successfully, it will login the defined server automatically. If it cannot connect to the server, it will reset after 50 seconds.

Login	Information
	Connecting: The word "Conn." twinkled Login: Display the word "Conn."

Serial communication:

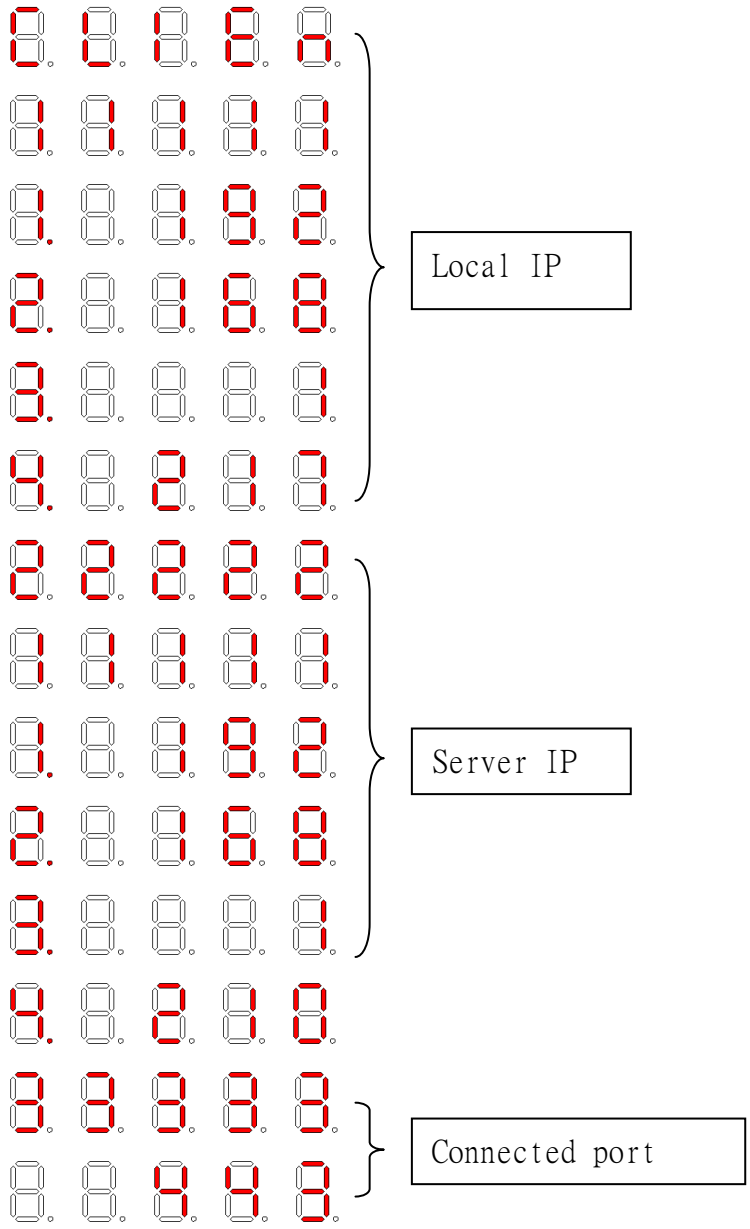
When the M2M-710D connects to the server, it will display the information of comport. For example.

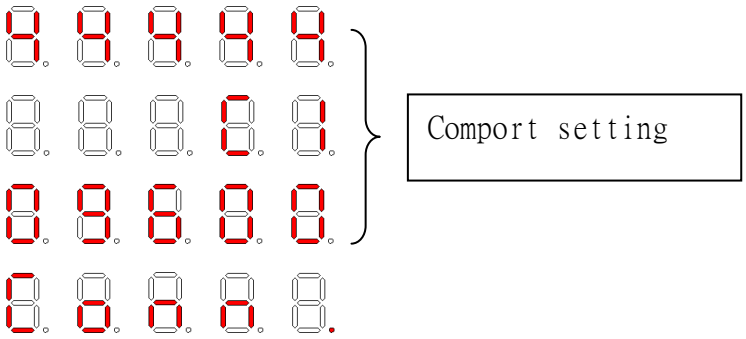
Serial communication	Information
	Port:1 Date:8 Parity: none Stop bit:1
	Baudrate:9600

Ex:

Client information

IP	192.168.1.217
Server IP	192.168.1.210
Listen port	443
Baud rate	9600
Date	8
Parity	none
Stop bit	1




Comport setting

3. Configuration and Operation with Web Browser

The M2M-710D module is built-in web server, the user can configure and operate the M2M-710D by web browser (ex: IE).

3.1 Connection Setting

Before you open the web browser to configure the module, it needs to connect the M2M-710D and your PC in the same sub network or same Ethernet Switch (as shown in figure 7) and set network settings (such as IP/Mask/Gateway) of the PC. The example of connection setting will be described below and Microsoft Windows XP Professional SP2 is used.

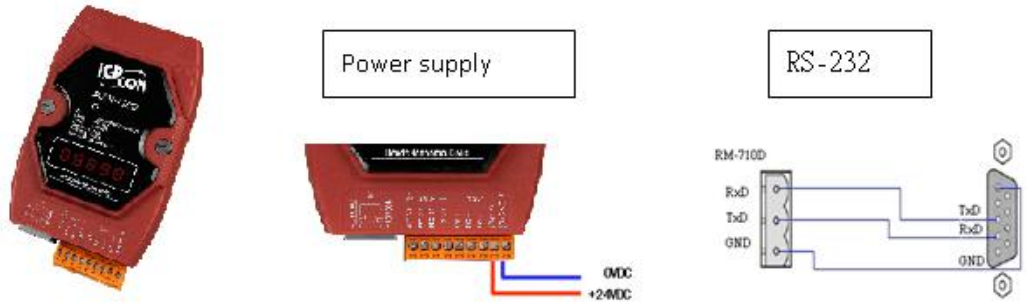


Figure 10 connection architecture

Connection steps:

Step 1: Open Network Connections

1.Click “start->Settings->Network Connections”

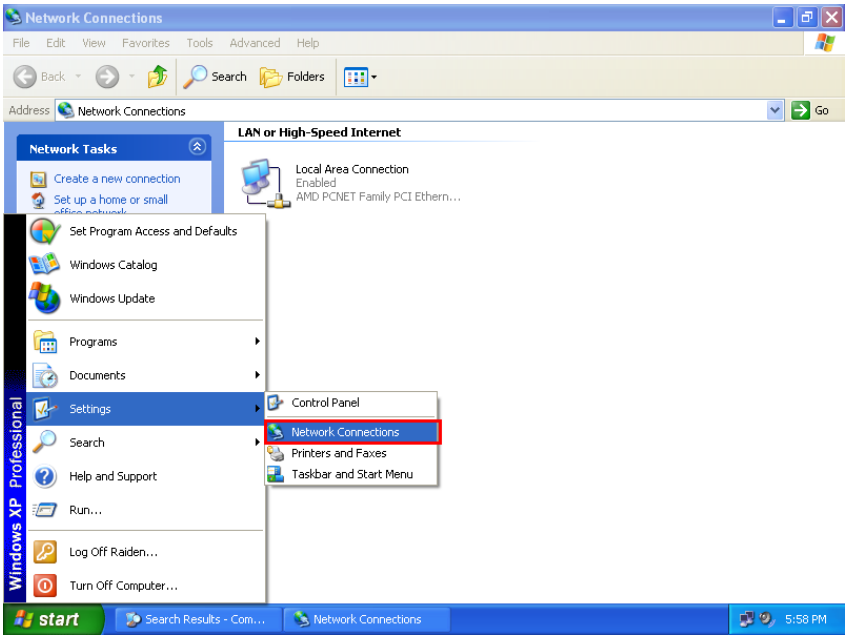


Figure 11 click “start->Settings->Network Connections”

2. Double click “Local Area Connection” icon

3. Click “Properties” button

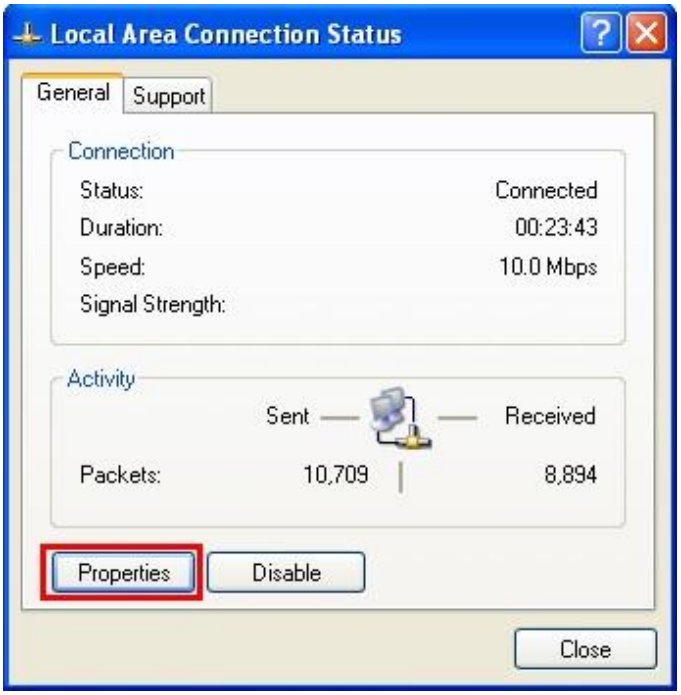


Figure 12 click “Properties” button

4. Select “Internet Protocol (TCP/IP)” and click “Properties” button

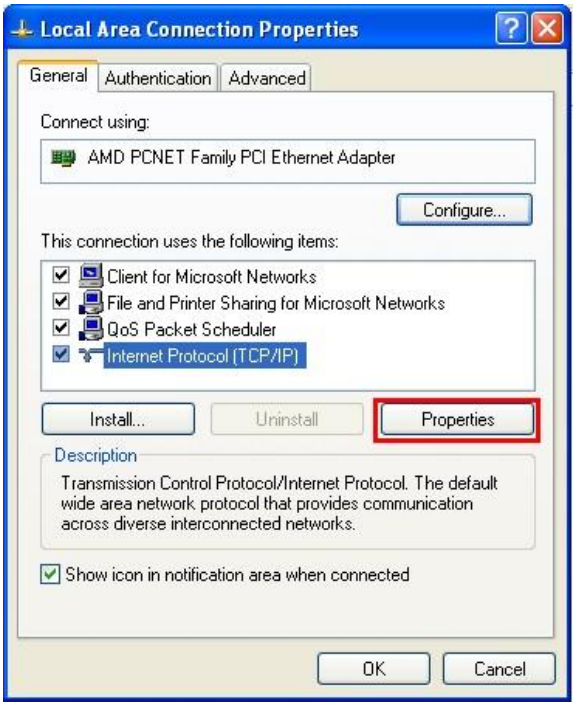


Figure 13 click “Properties” button

Step 2: Set "Internet Protocol Properties" and then click "OK" button.

The settings must have the same domain and different IP with the M2M-710D. (Ex: M2M-710D's default IP = 192.168.1.217, PC's IP = 192.168.1.210).

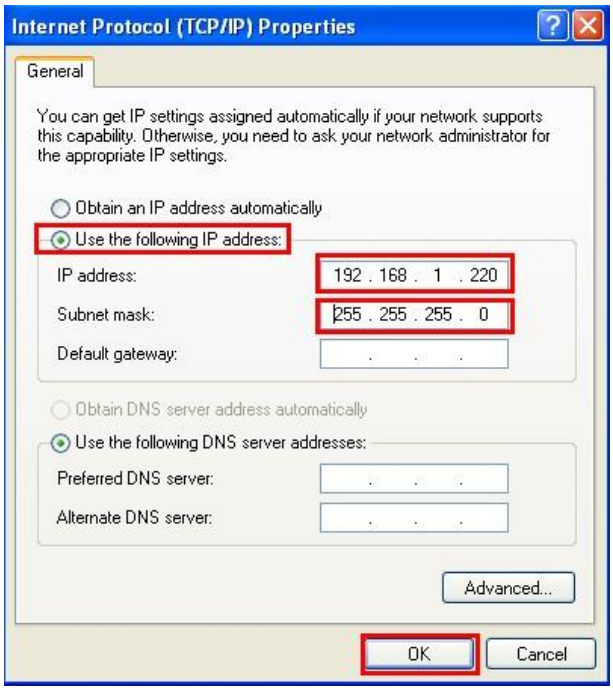

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 1 . 220
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Figure 14 set "Internet Protocol Properties

Step 3: test connection

1. Click "start->Run..."

Figure 15 click "start->Run..."

2. Key in “cmd” and then click”OK” button

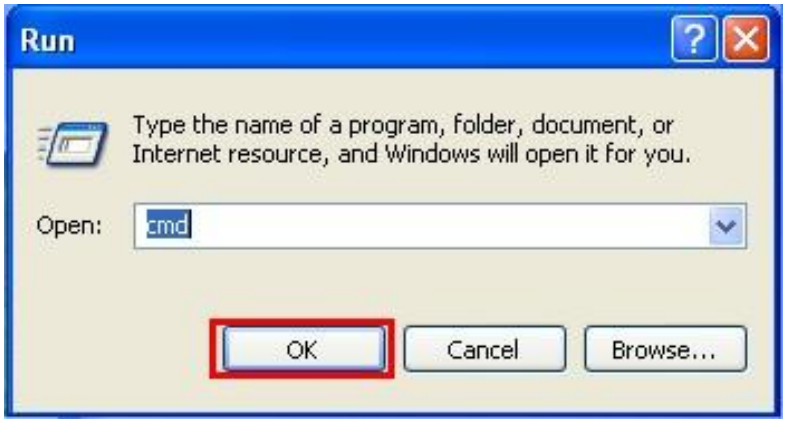


Figure 16 key in “cmd” and then click”OK” button

3. key in “ping 192.168.1.217” and click “Enter”. If the response message shows “Request timed out” (figure 14), it means the network settings between PC and the module are not correct. Please check the network is available and the settings are all correct.

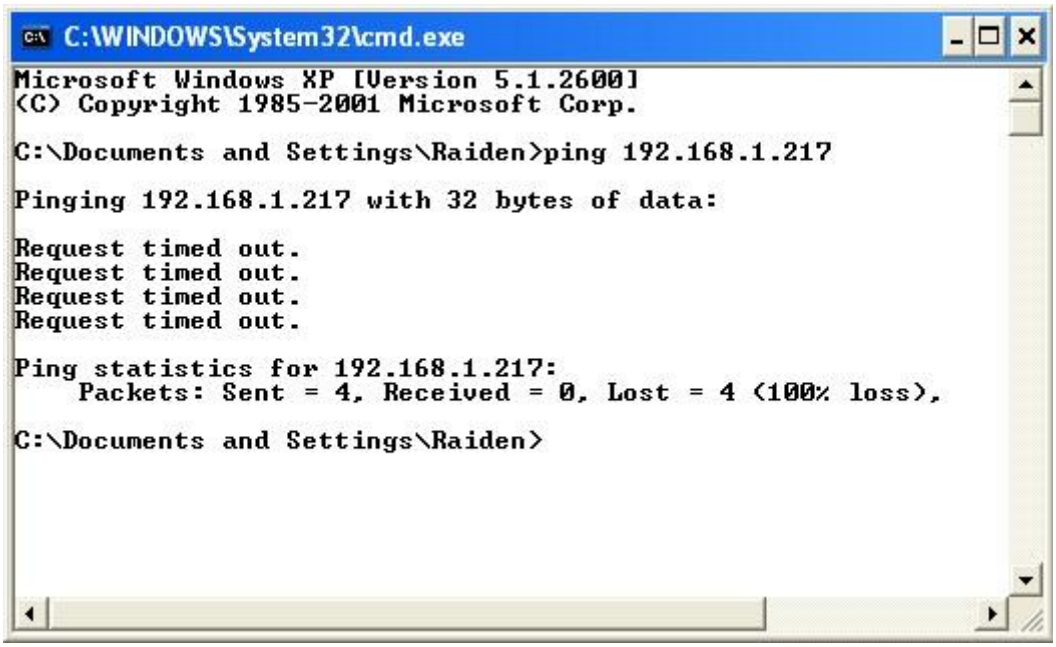

C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Raiden>ping 192.168.1.217
Pinging 192.168.1.217 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.217:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\Documents and Settings\Raiden>

Figure 17 Ping IP Error

If the network settings are correct, it will show “Packets: Sent=4, Received=4, Lost=0“.

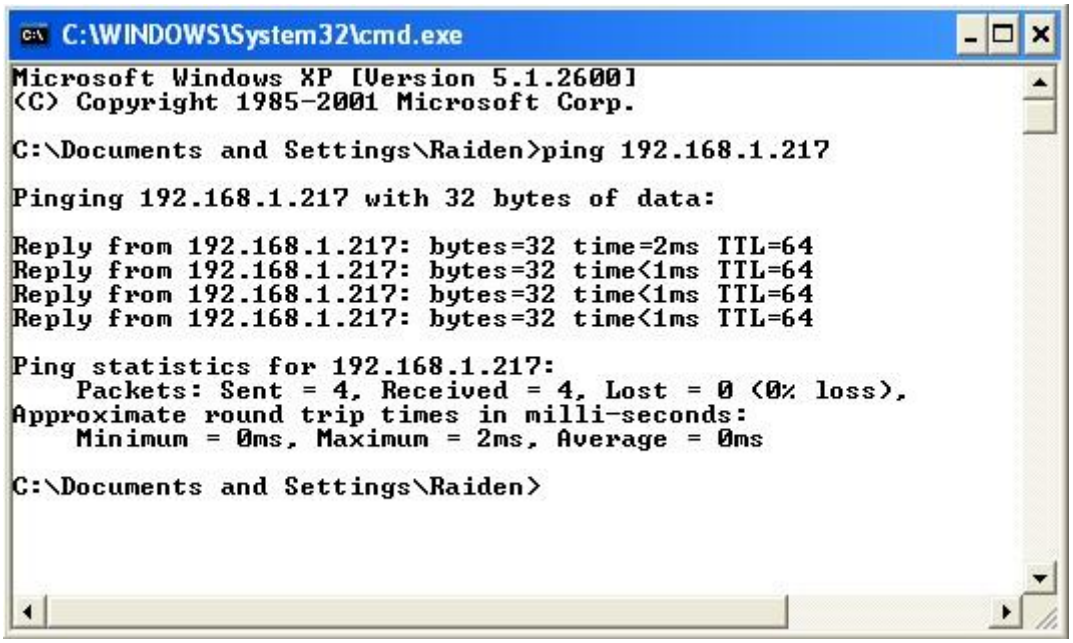

C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Raiden>ping 192.168.1.217
Pinging 192.168.1.217 with 32 bytes of data:
Reply from 192.168.1.217: bytes=32 time=2ms TTL=64
Reply from 192.168.1.217: bytes=32 time<1ms TTL=64
Reply from 192.168.1.217: bytes=32 time<1ms TTL=64
Reply from 192.168.1.217: bytes=32 time<1ms TTL=64
Ping statistics for 192.168.1.217:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 2ms, Average = 0ms
C:\Documents and Settings\Raiden>

Figure 18 Ping IP OK

3.2 Web Configuration—function menu

Now the PC is set completely and working well with the M2M-710D. Please open web browser (ex: IE, Mozilla, etc.) on PC and key in http://192.168.1.217/main.htm in the Address line and then press "Enter" key to link the M2M-710D, as shown in figure 16.

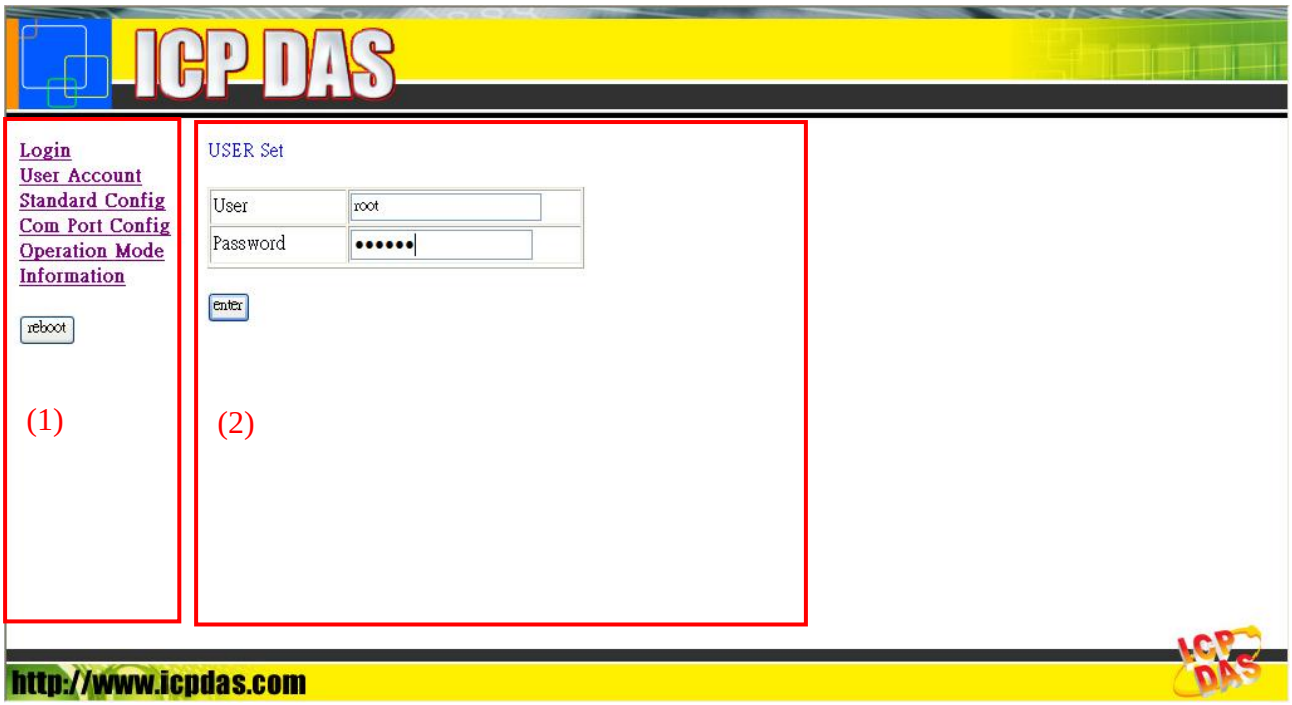


Figure 19 Web Configuration page

When the browser connects with the M2M-710D, Figure 16 is the first page. The left side is the function menu and the other is the setup page in the first page. Server and Client is different in the function menu, as shown in the below.

Function menu (Server)

- Login
- User Account
- Standard Config
- DDNS Config
- Com Port Config
- Operation Mode
- Information
- Information

Reboot

Function menu (Client)

- Login
- User Account
- Standard Config
- Com Port Config

- Operation Mode
- Information
- Information

Reboot

The “Reboot” button can provide the user to restart the M2M-710D.

3.3 Web Configuration—setup page

3.3.1 Login

The user login interface

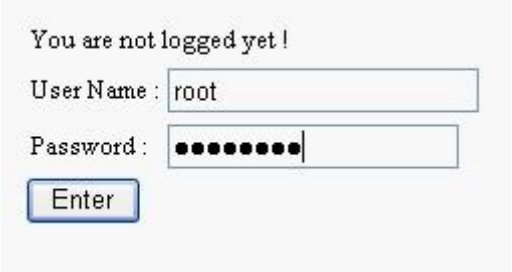


Figure 20 User and password

3.3.2 User Account

The user account setting limits which user can configure the module settings. The super user (Account, name=”root”, password=”icpdas”) is an only the user that can edit this page.

Figure 21 User Account page

3.3.3 Standard Config

When the user changes the setting in this page, the user must restart the M2M-710D for an active setting. The system has two kind of mode.

Server mode:

System	There are 2 operation modes in M2M-710D. They are “Server” and “Client”. The user can set the M2M-710D to be a server or client in this page. When the M2M-710D plays the role of client, it will try to connect with the server. When the M2M-710D plays the role of server, it will wait the client to link.
Host Name	For the module name
client name	Server’s permission name list.
Communication Port	The user can set the port number of the server that the client wants to link in this setting. The factory setting is “443”.

Boot Protocol: Static IP /DHCP	M2M-710D supports two kinds of IP modes; they are “Static IP” and “DHCP”. The user can choose one of these modes to set the IP address of M2M-710D.
IP Address	When Boot Protocol is “Static IP”, the user can set IP address of M2M-710D in this setting.
Net Mask	When Boot Protocol is “Static IP”, the user can set subnet mask of M2M-710D in this setting.
Gateway	When Boot Protocol is “Static IP”, the user can set gateway of M2M-710D in this setting.
DNS Server	When Boot Protocol is “Static IP”, the user can set DNS server of M2M-710D in this setting

Client mode:

System	There are 2 operation modes in M2M-710D. They are “Server” and “Client”. The user can set the M2M-710D to be a server or client in this page. When the M2M-710D plays the role of client, it will try to connect with the server. When the M2M-710D plays the role of server, it will wait client to link.
Host Name	For the module name
Connect to Server by: IP / DNS	The setting can provide the client to connect with the server by IP or DNS of the server
Server name	The user can set the DNS of the server that the client wants to connect to.
Server IP	The user can set the IP address of the server that the client wants to connect to.
Communication Port	The user can set the port number of the server that the clients want to link in this setting. The factory setting is “443”.
Boot Protocol: Static IP /DHCP	M2M-710D supports two kinds of IP modes; they are “Static IP” and “DHCP”. The user can choose one of these modes to set the IP address of M2M-710D.
IP Address	When Boot Protocol is “Static IP”, the user can set IP address of M2M-710D in this setting.
Net Mask	When Boot Protocol is “Static IP”, the user can set subnet mask of M2M-710D in this setting.
Gateway	When Boot Protocol is “Static IP”, the user can set gateway of M2M-710D in this setting.
DNS Server	When Boot Protocol is “Static IP”, the user can set DNS server of M2M-710D in this setting

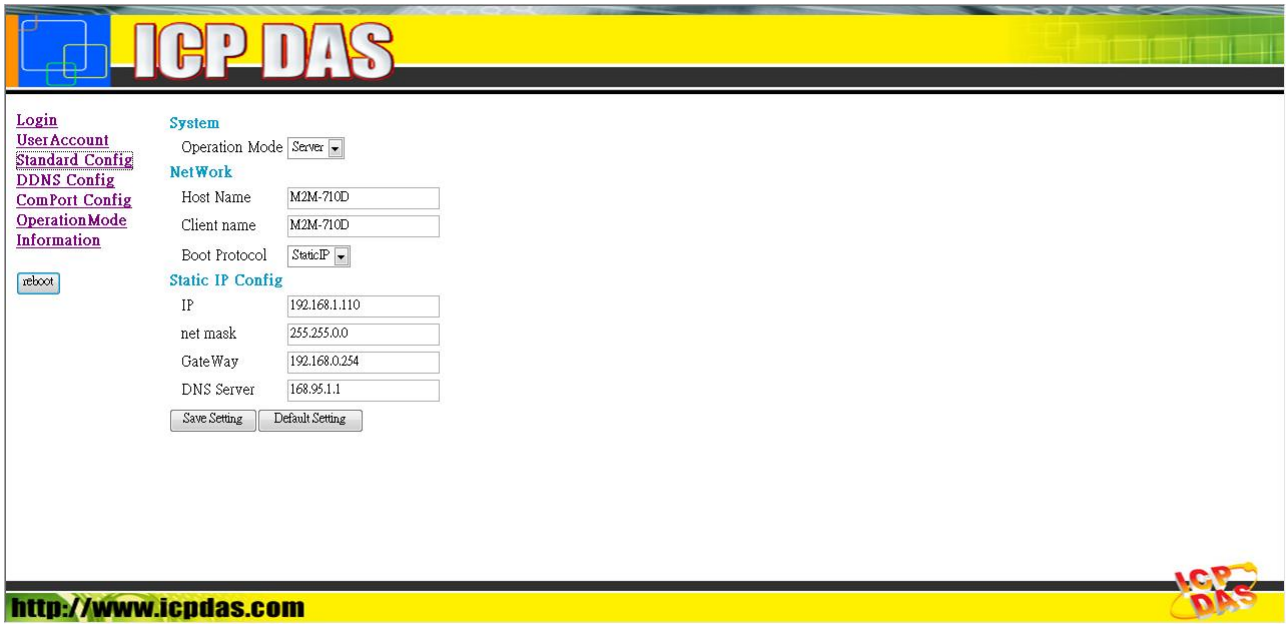


Figure 22 Standard Config page

3.3.4 DDNS Config

When the M2M-710D plays the role of server and Boot Protocol isn't "Static IP", the client may not connect with the server, because the IP address of the server is floating, not static. We provide a solution for this situation. That is DDNS service. When IP address of the server is changed, the server will register current IP to website that provides DDNS service. The client can connect with the server by domain name that the user registers.

NOTE: Every company that provides DDNS service has different way to register. In order to make it correctly work, we recommend the user to use DDNS service that the DynDNS Company provide. DynDNS website: http://www.dyndns.com/.

1. Create your Dynamic DNS account

a. Please open web browser (ex: IE, Mozilla, etc.) on PC and key in http://www.dyndns.com/ in the Address line and then press "Enter" key.

b. Key in "user name" and "password" and click "Login" button. If the user has not created user account, please click "Create Account" Hyperlink to create user account and then login user account.

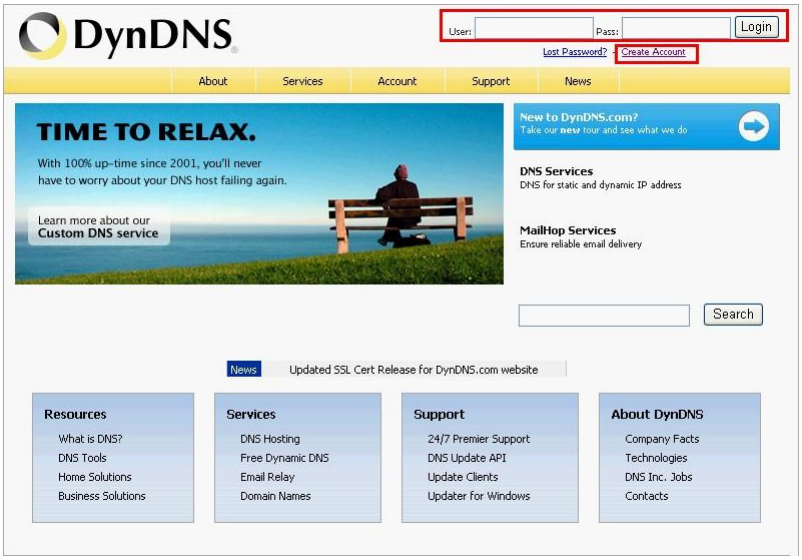


Figure 23 DynDNS home page

c. Click “Services” Hyperlink to enter Services page

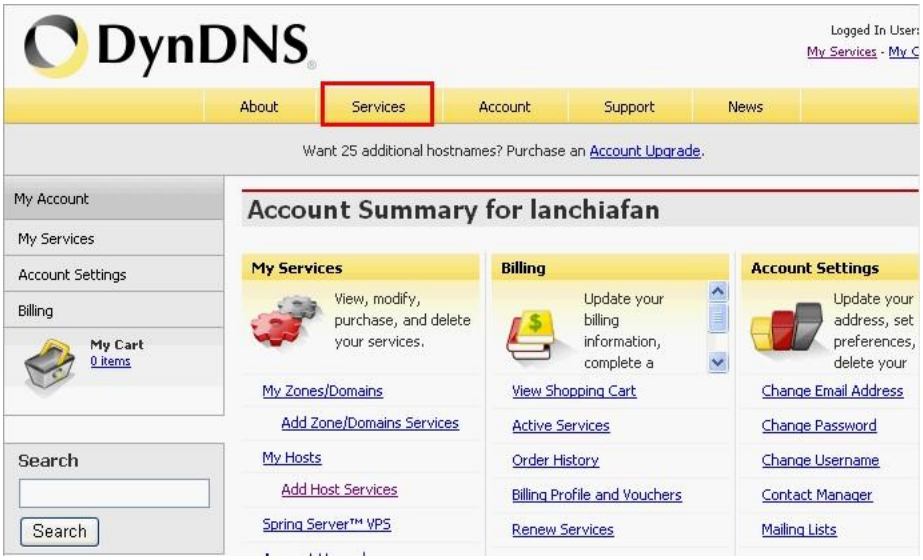


Figure 24 click ”Services” Hyperlink

d. Click “Dynamic DNS” Hyperlink to enter Dynamic DNS page

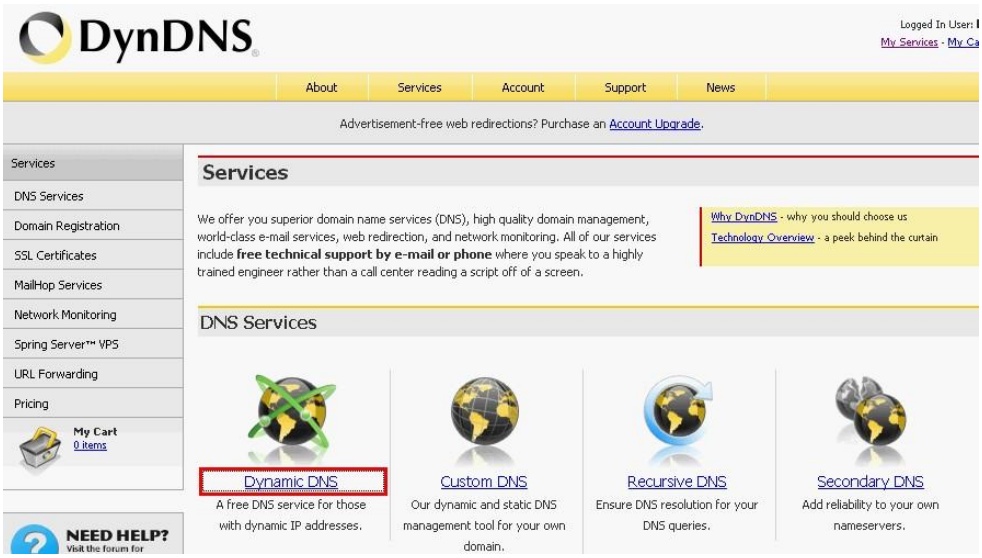

DynDNS
Logged In User:
My Services - My Ca
About
Services
Account
Support
News
Advertisement-free web redirections? Purchase an Account Upgrade.
Services
DNS Services
Domain Registration
SSL Certificates
MailHop Services
Network Monitoring
Spring Server™ VPS
URL Forwarding
Pricing
My Cart
0 items
NEED HELP?
Services
We offer you superior domain name services (DNS), high quality domain management, world-class e-mail services, web redirection, and network monitoring. All of our services include free technical support by e-mail or phone where you speak to a highly trained engineer rather than a call center reading a script off of a screen.
Why DynDNS - why you should choose us
Technology Overview - a peek behind the curtain
DNS Services
Dynamic DNS
A free DNS service for those with dynamic IP addresses.
Custom DNS
Our dynamic and static DNS management tool for your own domain.
Recursive DNS
Ensure DNS resolution for your DNS queries.
Secondary DNS
Add reliability to your own nameservers.

Figure 25 click ” Dynamic DNS” Hyperlink

e. Click “Get Started” button

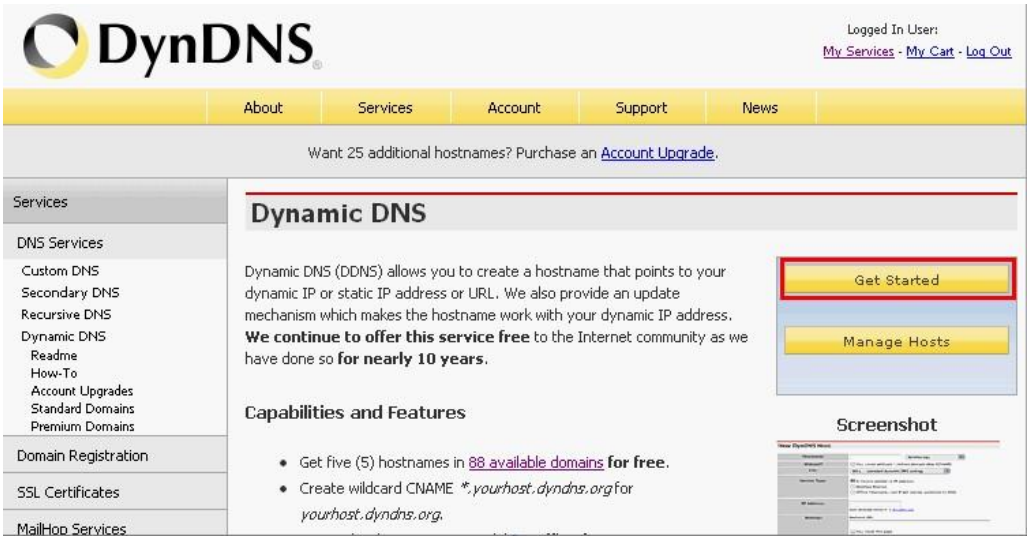

DynDNS
Logged In User:
My Services - My Cart - Log Out
About
Services
Account
Support
News
Want 25 additional hostnames? Purchase an Account Upgrade.
Services
DNS Services
Custom DNS
Secondary DNS
Recursive DNS
Dynamic DNS
Readme
How-To
Account Upgrades
Standard Domains
Premium Domains
Domain Registration
SSL Certificates
MailHop Services
Dynamic DNS
Dynamic DNS (DDNS) allows you to create a hostname that points to your dynamic IP or static IP address or URL. We also provide an update mechanism which makes the hostname work with your dynamic IP address. We continue to offer this service free to the Internet community as we have done so for nearly 10 years.
Get Started
Manage Hosts
Capabilities and Features
Screenshot
Get five (5) hostnames in 88 available domains for free.
Create wildcard CNAME *.yourhost.dyndns.org for yourhost.dyndns.org.

Figure 26 click “Get started” button

f. Key in and select your hostname (ex: icpdas.home linux.com), and key in IP address of the server. Don’t care the other settings and click “Create Host” button.

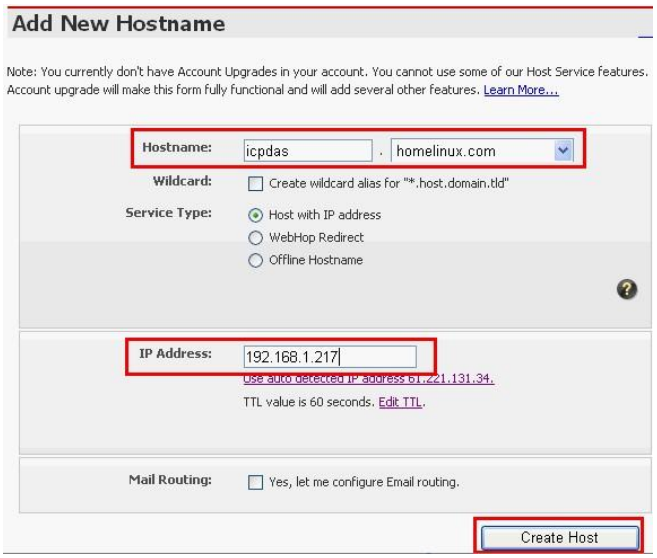

Add New Hostname
Note: You currently don't have Account Upgrades in your account. You cannot use some of our Host Service features.
Account upgrade will make this form fully functional and will add several other features. Learn More...
Hostname:
icpdas
homelinux.com
Wildcard:
Create wildcard alias for "*.host.domain.tld"
Service Type:
Host with IP address
WebHop Redirect
Offline Hostname
IP Address:
192.168.1.217
Use auto detected IP address 61.221.131.34.
TTL value is 60 seconds. Edit TTL.
Mail Routing:
Yes, let me configure Email routing.
Create Host

Figure 27 Add New Hostname

Figure 28 Create New hostname success

2. DDNS Config:

DDNS	Disable / Enable The user can enable or Disable DDNS function by this setting
Host Name	It is the hostname that user creates in DynDNS website (ex: icpdas.homelinux.com)
User Name	It is the name of the user account in DynDNS website.
Password	It is the password of the user account in DynDNS website.

Figure 29 DDNS Config page

3.3.5 Com Port Config

The user can set com port setting of M2M-710D in this page. If com port setting of the server and client is different, Com port setting of the client will be covered by the server. When the user changes the setting in this page, the user must restart the M2M-710D to active the new setting.

Port	RS232 / RS485/Vxcomm Select com port connection from RS-232 or RS-485 or Vxcomm.
Remote Port	Client's port
Baud Rate	1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 bps
Data Bits	5 / 6 / 7 / 8 data bits
Parity	None / Odd / Even
Stop Bits	1 / 2 stop bits
Flow Control	None / Hardware / XonXoff

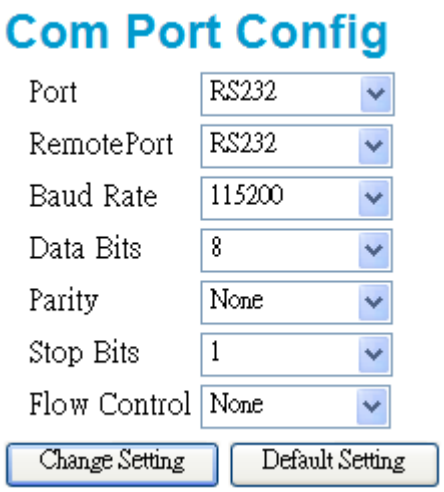


Figure 30 Com Port Config page

3.3.6 Operation Mode

Server Mode:

Remote IP(Server only)	Remote client's IP
Port	Select com port connection from RS-232 or RS-485 or Vxcomm.
Remote Port(server only)	The client's port
Baud Rate	1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 bps Select baud rate of com port.
Data Bits	Data Bits: 5 / 6 / 7 / 8 data bits Select data bits of com port.
Parity	Parity: None / Odd / Even Select parity of com port.
Stop Bits	1 / 2 stop bits Select stop bits of com port.
Flow Control	None / Hardware / XonXoff Select flow control of com port.
Get Status	User can set current communication parameters from this button.

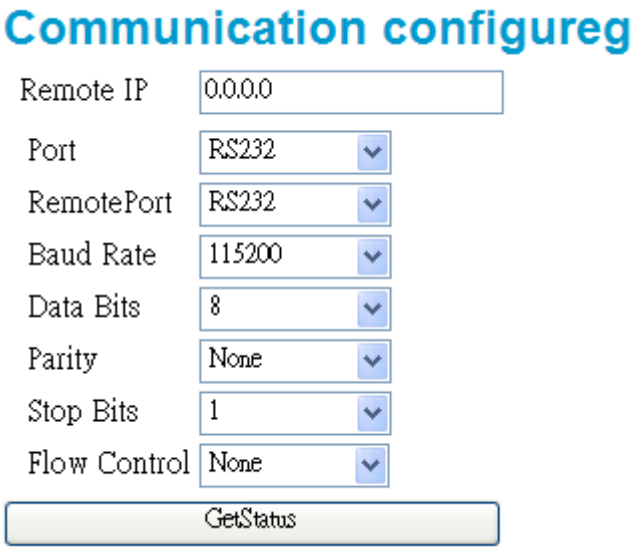


Figure 31 Operation Mode page

3.3.7 Information

1. OS Version: Show OS version.
2. XS Version: Show application program version.
3. Firmware Version: Show firmware version
4. Current IP: Show current IP.
5. Subnet Mask: Show current subnet mask.
6. Mac Address: Show current Mac address.
7. System state:

Server	“Listen” System wait for listen. “Communication” Server communicate with client
Client	“Initok" System initial “try to connect” Client try to connect server “Login” Client Login successful “Communication” Server communicate with client

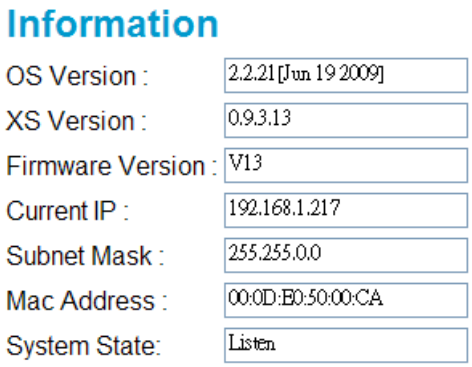


Figure 32 Information page

4. Application

Application with M-4132

M2M-710D can be applied with M-4132. In this application, the M2M-710D is set as Client mode, and then M-4132 have RM Manager server function that can manage several RM client, and each of RM Client have different host name. This frame may apply in various applications more flexibly.

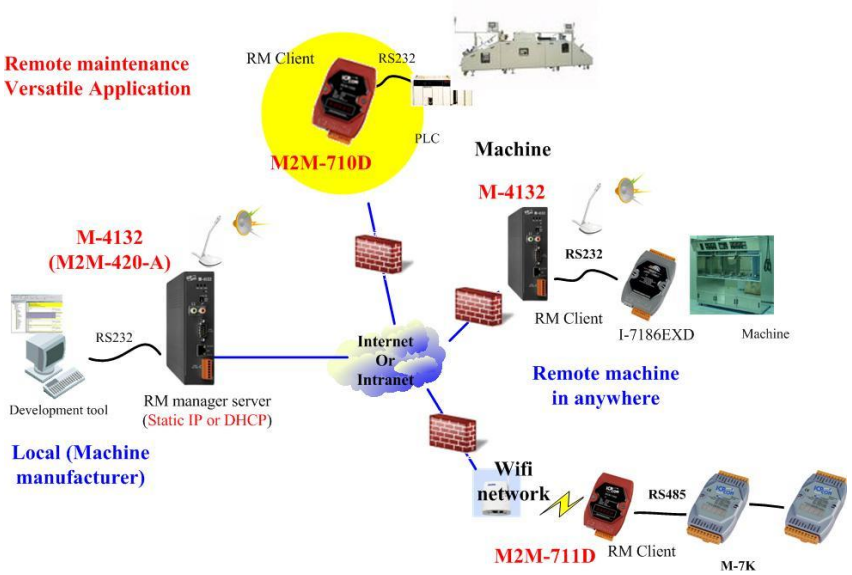


Figure 33 Information page

A server can accept one or more clients to login, but a server can only connect with the first client in pair connection mode. In this mode, two M2M-710Ds (one as Server, the other as Client) setup a virtual channel over Ethernet or Internet that allow serial (RS-232 or RS-485) data to pass through, as shown in figure.

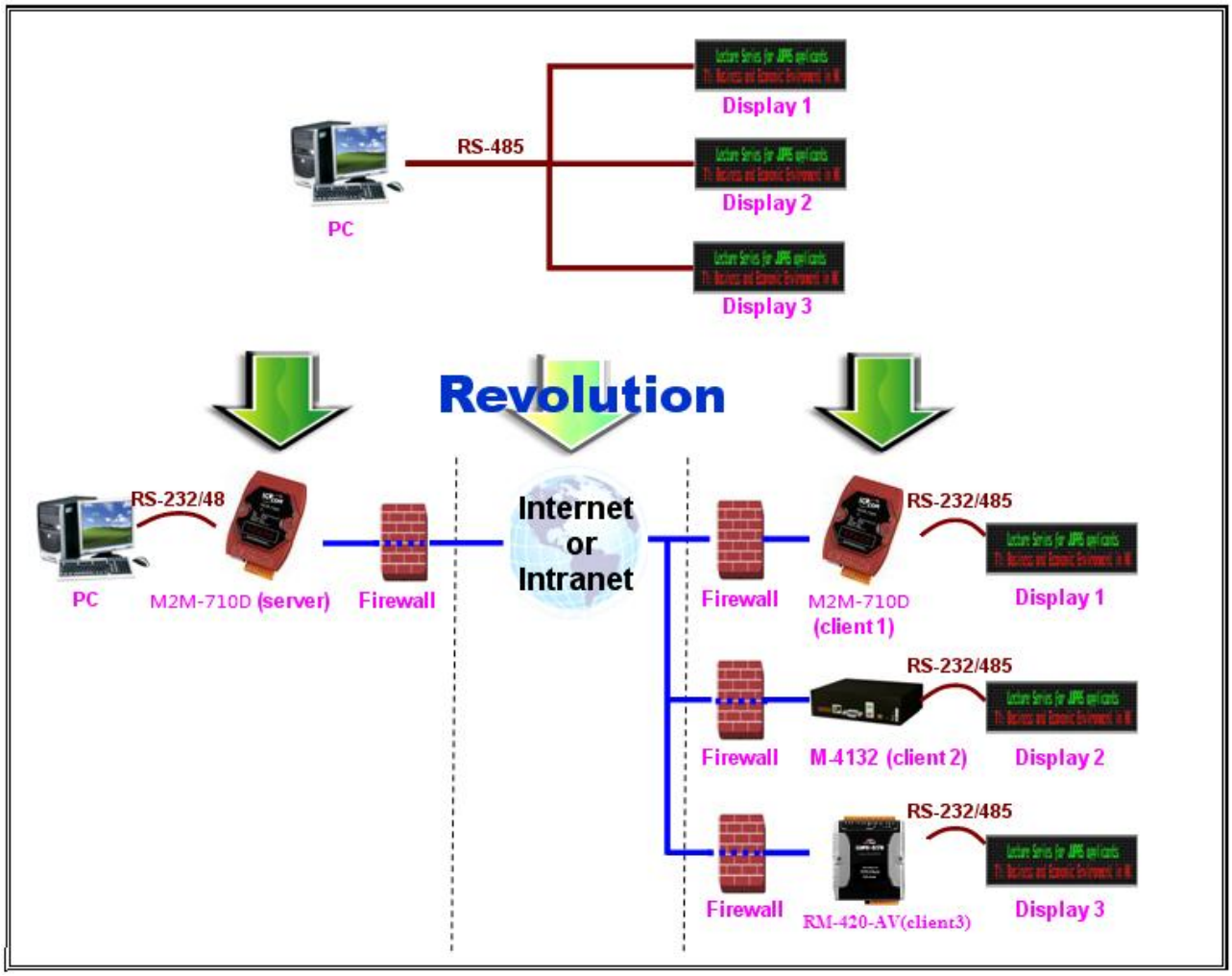


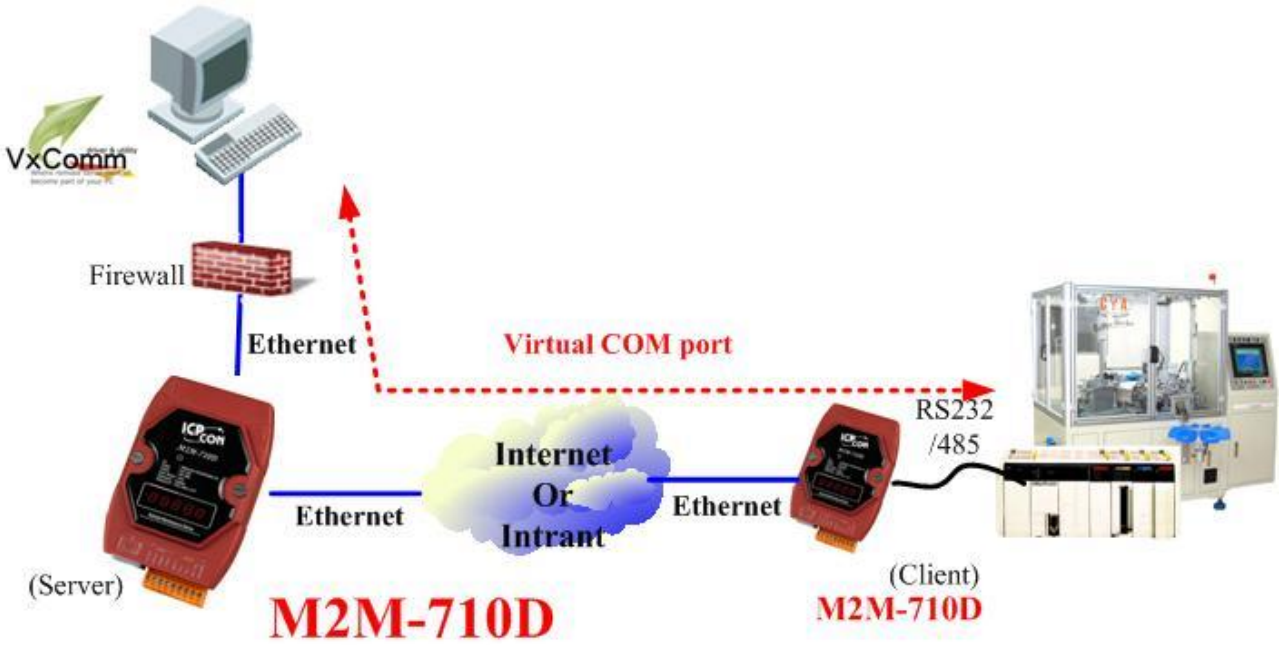
Figure 34 Pair connection (one server to one client)

5.VxComm Applications(Firmware ver:V13 or latter)

5.1 Introduction

Using the VxComm (Virtual Com) technology, PC can create virtual Com Ports to map the Com Port of the M2M-710D. To use the VxComm application, users must install a VxComm Driver first. After installation, users can operate the virtual Com Port as a real Com Port in PC to access the serial devices connects to the M2M-710D. By doing this, you can operate the remote com port whatever and whenever you are.

Note: VxComm is just provided in server mdoe



5.2 Architecture

In Pair connection mode the user can operate the virtual Com Port to access the serial device connects to the M2M-710D Client.

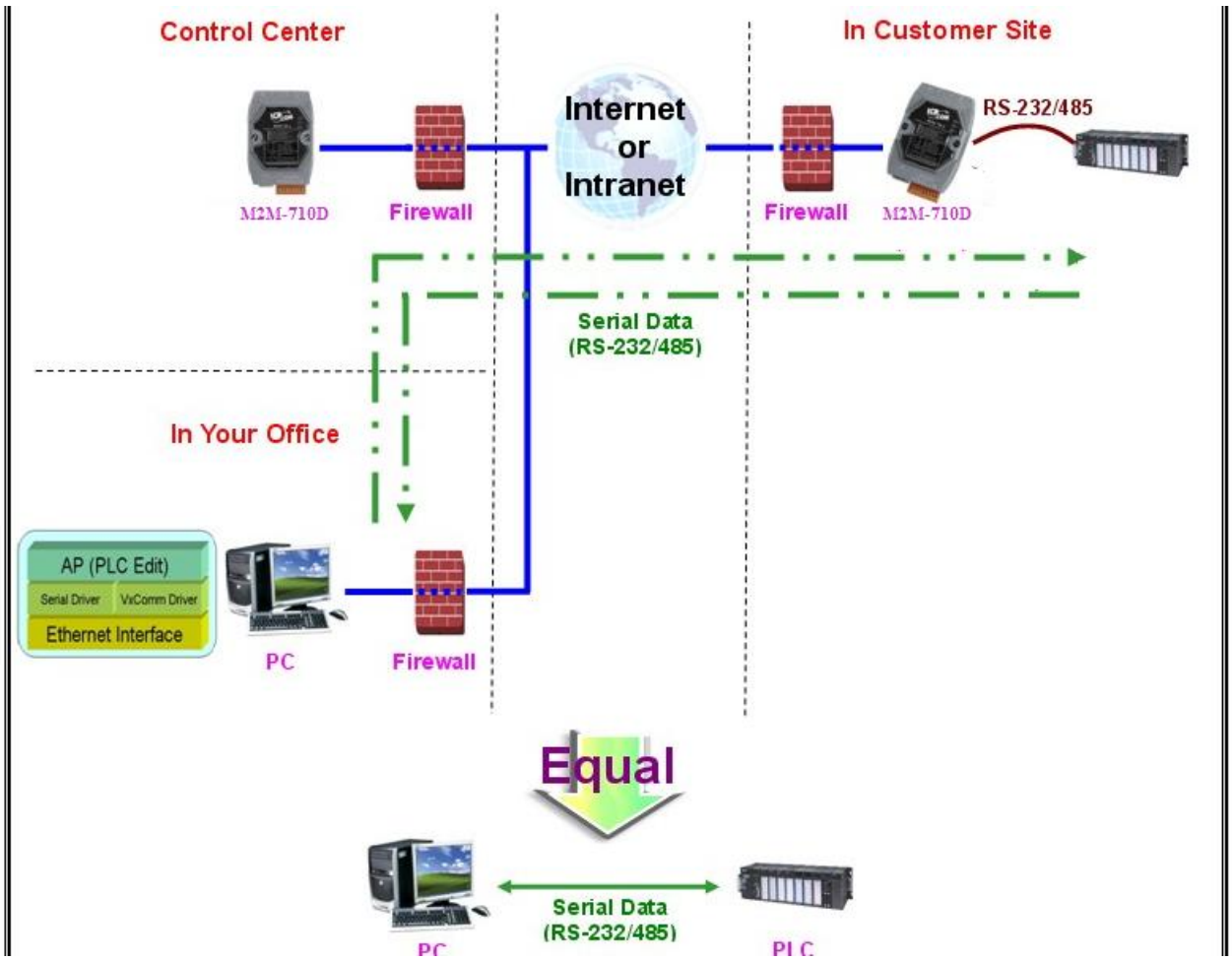


Figure 35 *VxComm Applications*

5.3 Installing the VxComm Driver

Step 1: The installation software can be obtained from the following location
ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/vxcomm_driver/

Please choose the latest version that suits your Windows operation system.
VxComm2K_v2.9.13_setup.exe for Windows NT4.0, 2000 /XP/2003 and Vista32 (32-bit)
VxComm98.exe for Windows 95/98/ME

Step 2: Go the where you download the installation file, and then double-click the file in Windows to execute it.

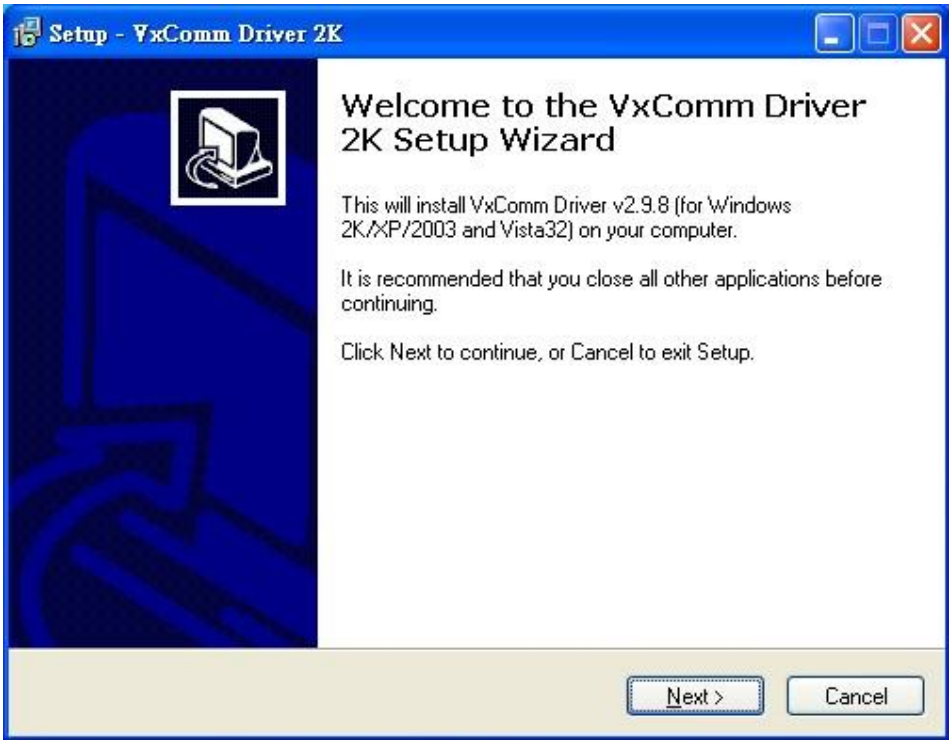

Setup - VxComm Driver 2K
Welcome to the VxComm Driver 2K Setup Wizard
This will install VxComm Driver v2.9.8 (for Windows 2K/XP/2003 and Vista32) on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

Figure 36 *VxComm Driver install*

Step 3: From the Windows Start Menu, go to Program/ICPDAS /VxComm2K/ and click the VxComm Utility.

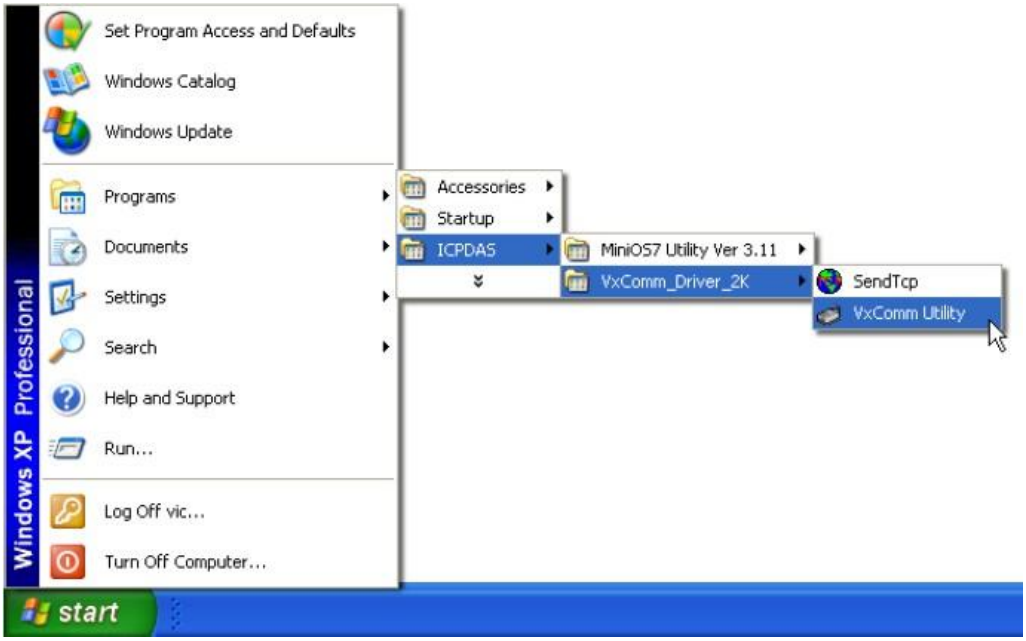


Figure 37 *VxComm Utility location*

Step 4: Search and add M2M-710D to VxComm Server.

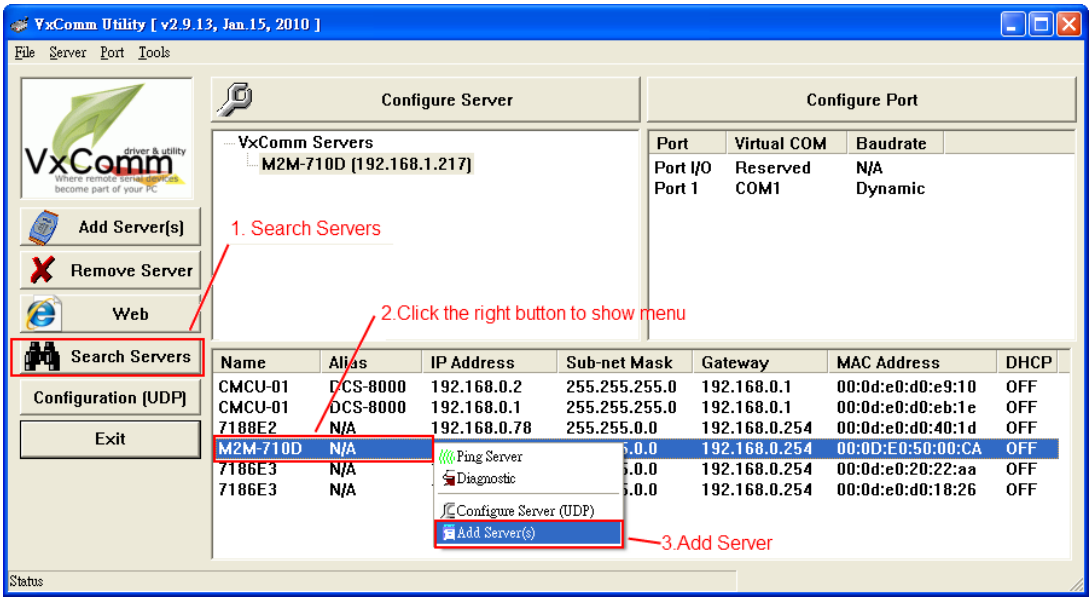


Figure 38 *Search and add M2M-710D VxComm Server*

Step 5: Double click Port1 to open “Port Configuration” dialog and select an appropriate Com Port number.

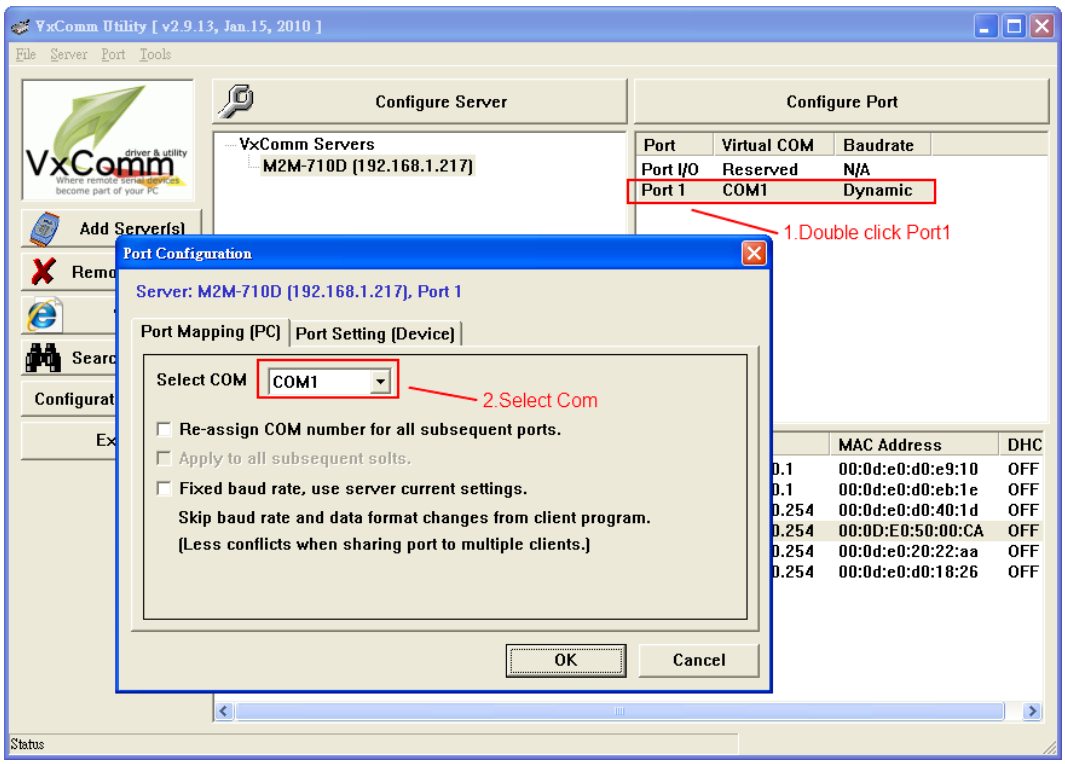


Figure 39 Select Com Port number

Step 6: Reset VxComm Driver to make the settings effectively

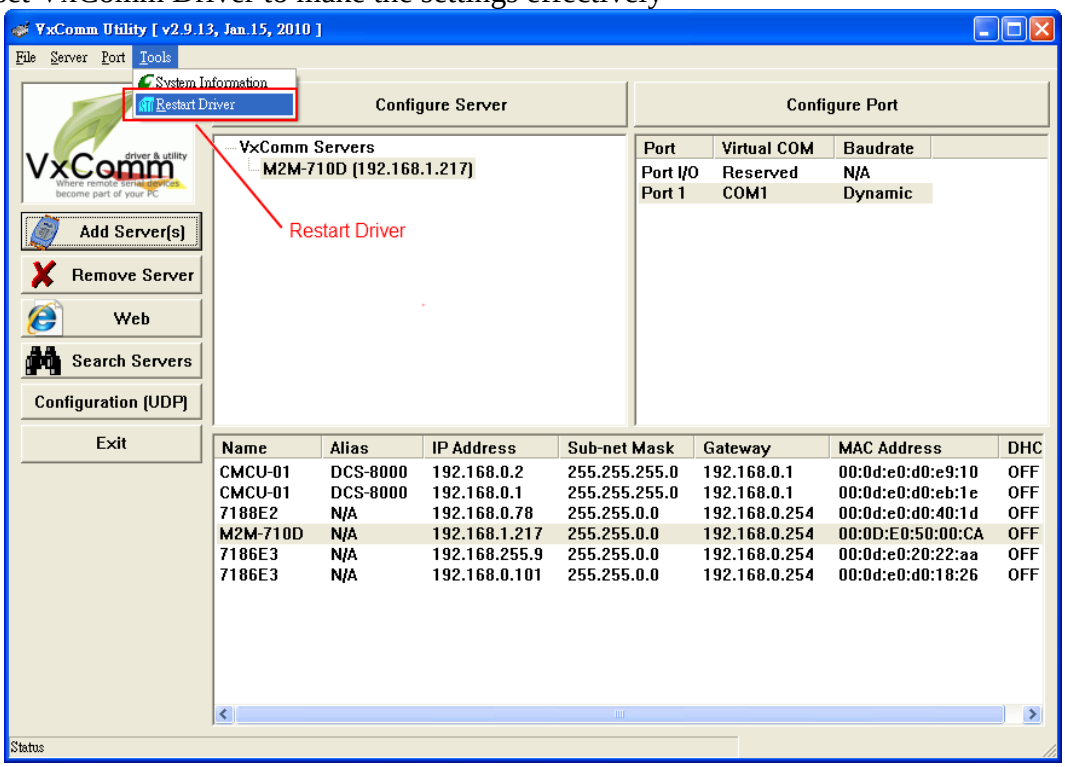


Figure 40 Reset VxComm Driver

5.4 VxComm communication test

Step 1: Connect M2M-710D Server, Client and PC, as shown below.

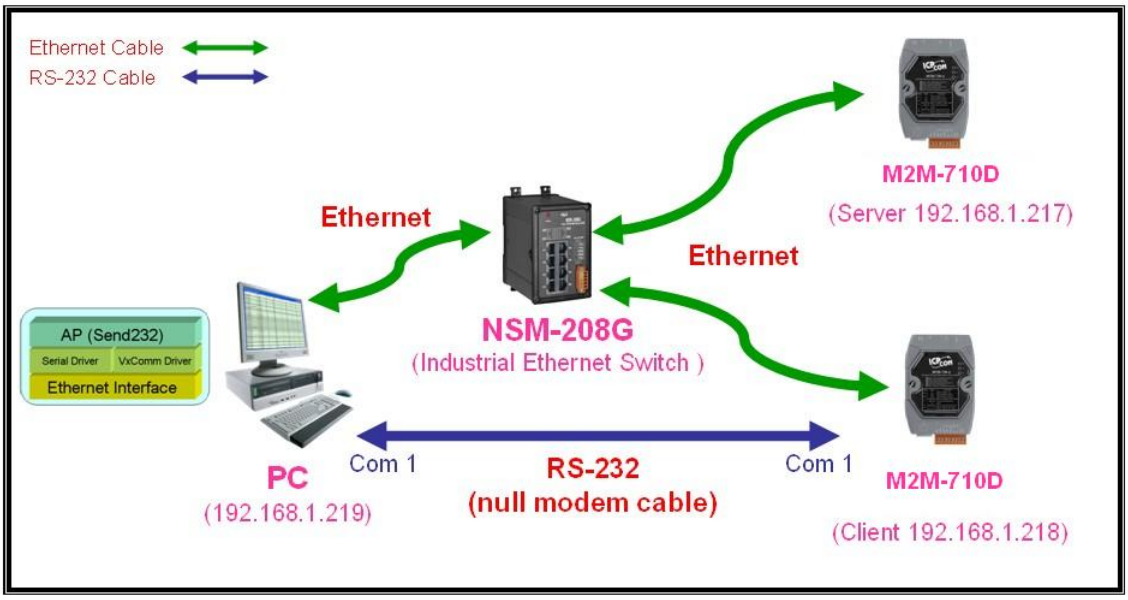


Figure 41 *Communication Architecture*

Step 2: Configure M2M-710D Server's Port1 to PC's Com2 by VxComm Utility, please refer to section 5.3 for detail.

Step 3: Set "Port" = VxComm, "Remote Port" = RS232, select M2M-710D Client and then click "Change setting".

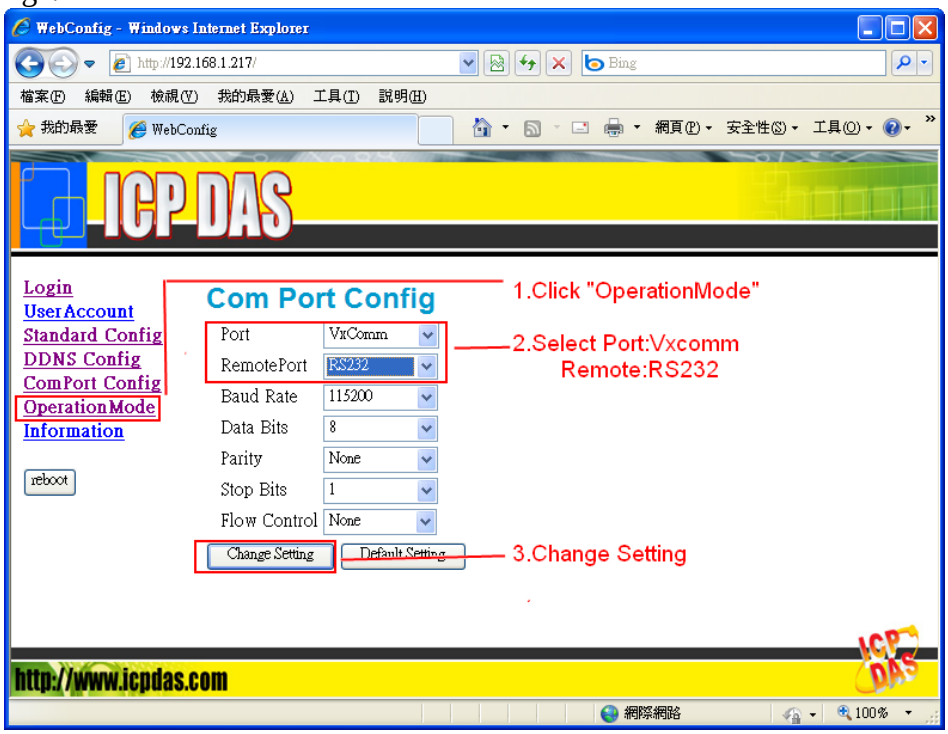


Figure 42 *Web page settings*

Step 4: Here we use Send232 Application (the user can download Send232 from http://ftp.icpdas.com/pub/cd/8000cd/napdos/7188e/tcp/pcdiag/source/send232.vb6_2.0.1) to test VxComm communication. Please open 2 Send232 Applications. One uses Com1 (connect with M2M-710D Client), the other uses Com2 (provide by VxComm driver). When the user clicks "Send" button to send the message, the receive text box of the other-will show the message.

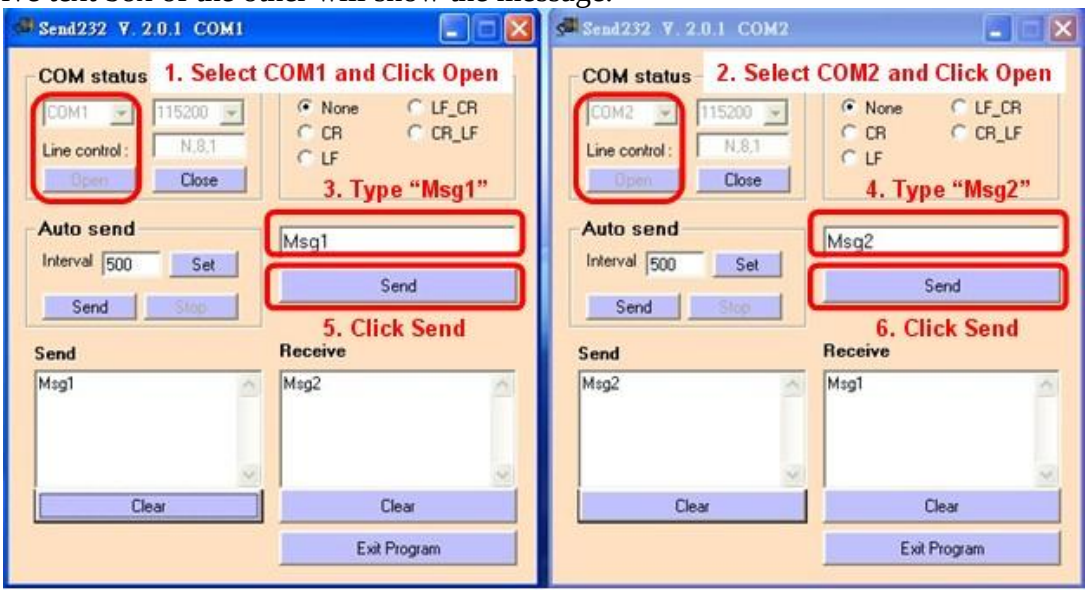


Figure 43 *Communication test*

6. Troubleshooting

The troubleshooting list can help users to resolve the problems when using the M2M-710D. If the problem still can't be solved, please contact with the technical staff of ICP DAS.

Table Errors and solutions

Item	Trouble state	Solution
1	Led stay 8 8 8 8 8	Server name error Check net configuration Check server name Try to use IP
2	Client login, but it cannot Pair Connection	1.Inspects the line 2. Is M2M-710D online?
3	Continuously heavy starting	Reboot RM710D both server and client
4	The word “Conn.” twinkled	Check Server IP Check net

7. FAQ

Q1: If I forget the M2M-710D's IP, how can I set and operate the M2M-710D by web browser?

A1：

(1) ：Please reset system, and IP address will show again.

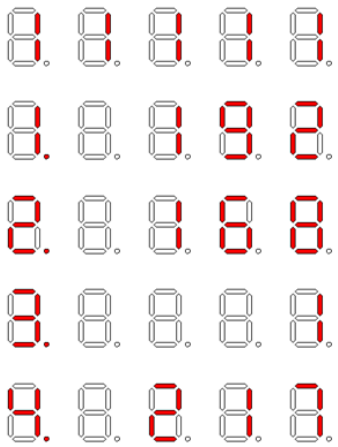


Figure 44 Display IP address

(2)：Init M2M-710D reference 2.3. Default value of IP address is 192.168.1.217

Q2: Client cannot connect to Server.

A2: Please follow the following steps to check that the network configuration is correct.

Step 1: Check IP of Server and Client is the only. The IP is not the same with the other network device.

Step 2: Please confirm the network configurations are correct. The configurations include IP Address, Net Mask, Gateway and DNS Server. If the configurations are all correct, it should respond to the ping command from PC.

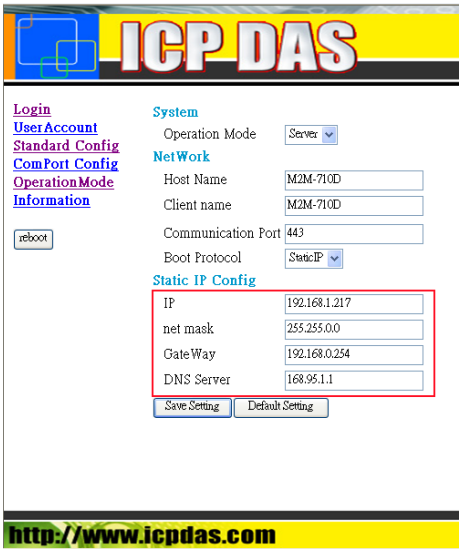


Figure 45 Net setting

Step 3: Please confirm that the following settings are correct.

- "Server IP" of Client is the same with "IP Address" of Server.
- "Communication Port" of Server and Client are the same.
- "Operation Mode" of Client is "Client".
- "Operation Mode" of Server is "Server".

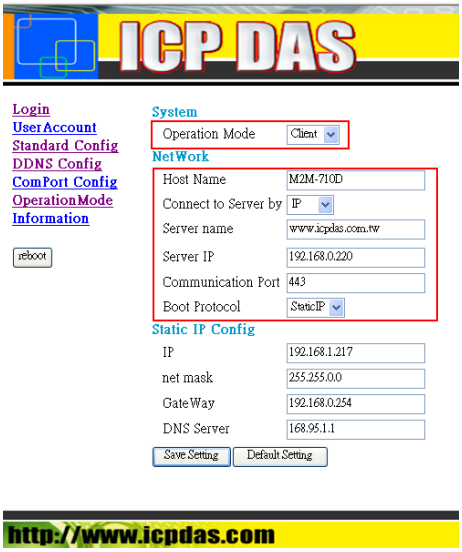


Figure 46 Client's "Standard Config" page

Figure 47 Server's "Standard Config" page

Q3: Server and Client can't establish Com Port connection.

A3: Please follow the steps to check below.

Step 1: Confirm client's name is the same as server permission name list.

Step 2: Confirm comport setting of server and client. Server comport setting must the same setting as client.

Figure 48 Comport setting of server

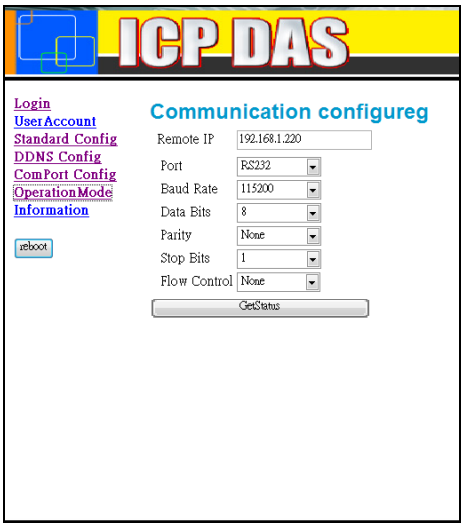
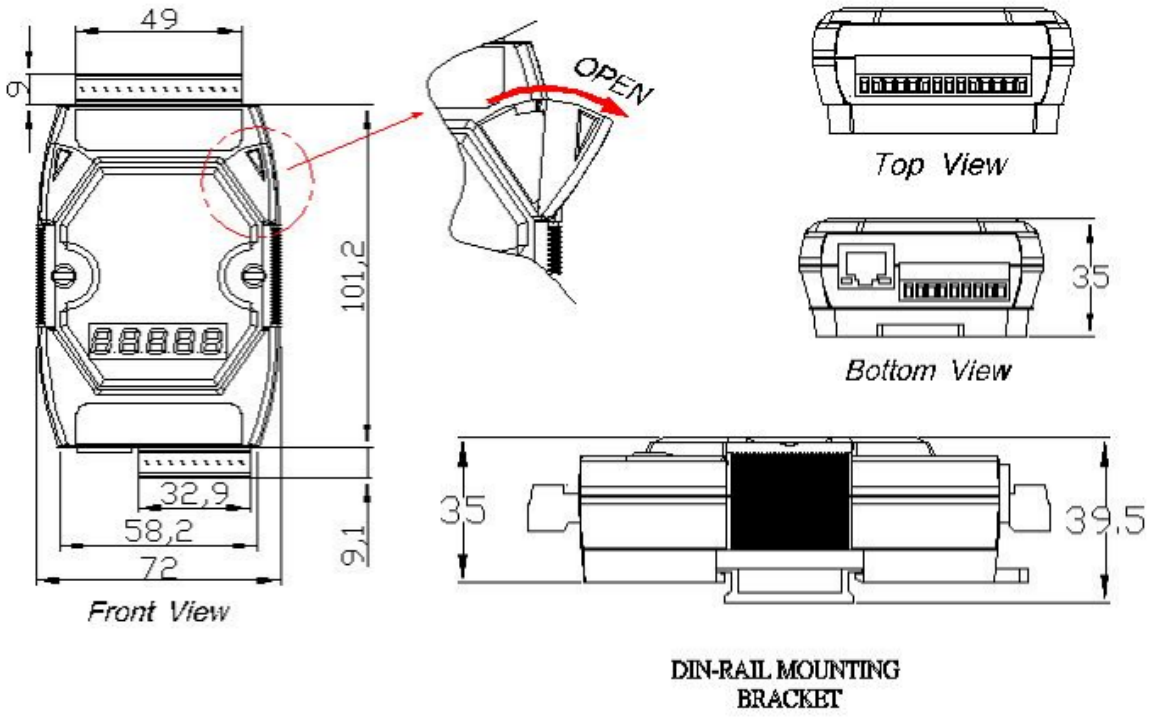


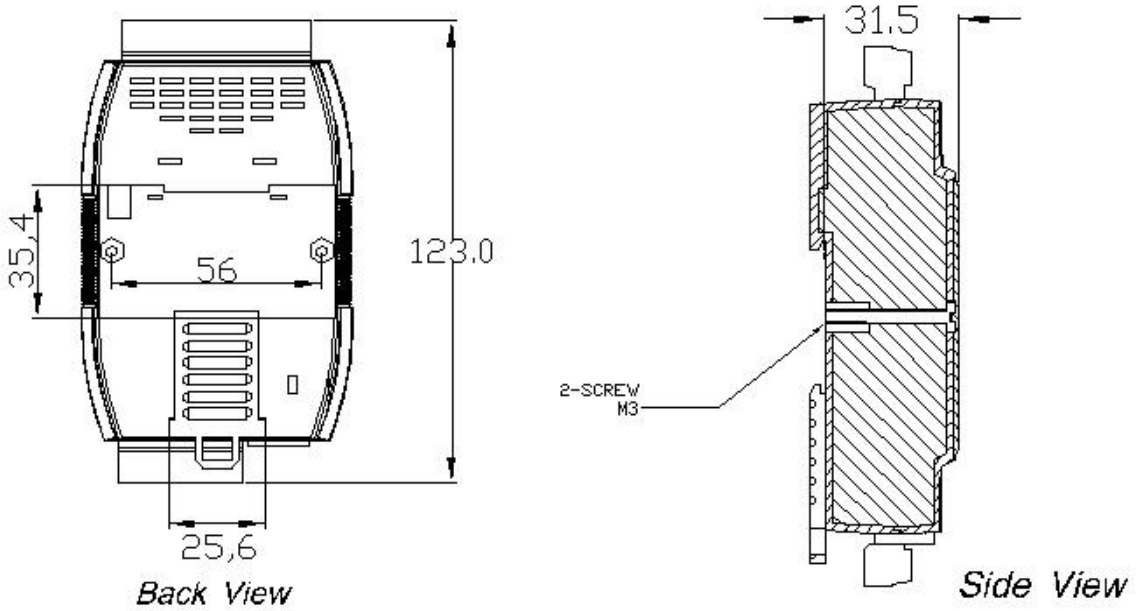
Figure 49 Comport setting of client

Step 3: Does the inspection wiring have the question?

8. Dimensions

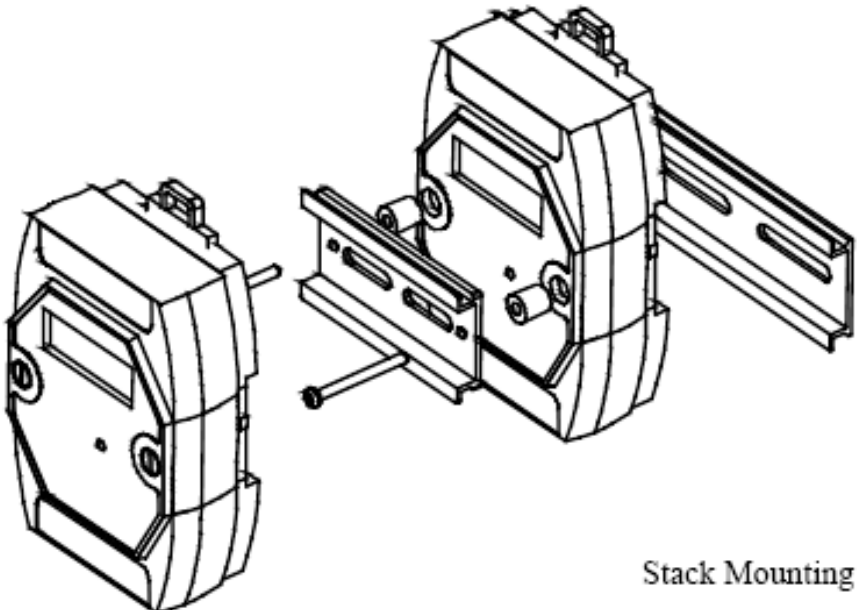


(Unit: mm)

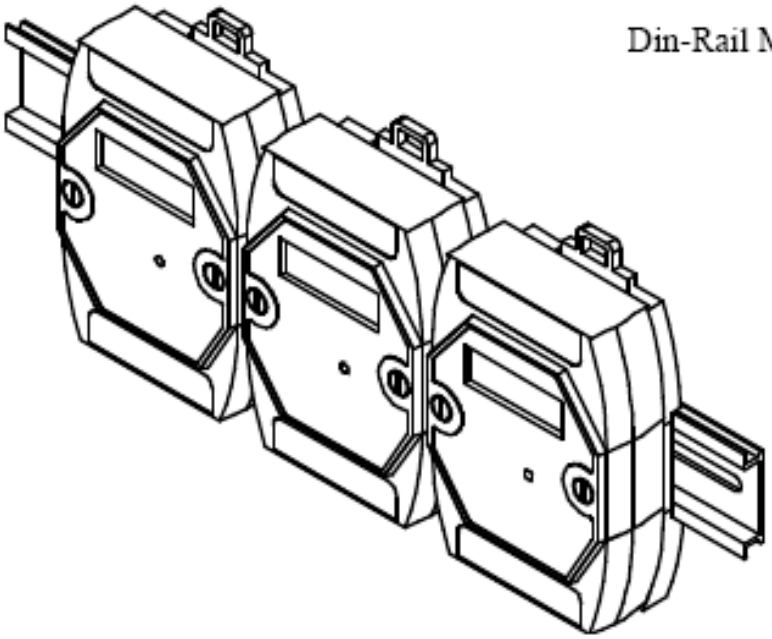


Unit : mm

Installation



Stack Mounting



Din-Rail Mounting

9. Frame Ground

Electronic circuits are constantly vulnerable to Electro Static Discharge (ESD), which becomes worse in a continental climate area. M2M-710D module feature a new design for the frame ground, which provides a path for bypassing ESD, allowing enhanced static protection (ESD) capability and ensures that the module is more reliable.

It is recommended that the Frame Ground of the M2M-710D module is corrected to the earth ground, such as the ground of an AC power supply, to provide better ESD protection for the module.

The M2M-710D module is designed with two Frame Ground contact points, Frame-Ground-A and Frame-Ground-B, as shown in the figure below. When mounted to a DIN rail, Frame-Ground-B and the DIN rail are in contact. Thus, protection can be achieved by also connecting the DIN rail to earth ground.

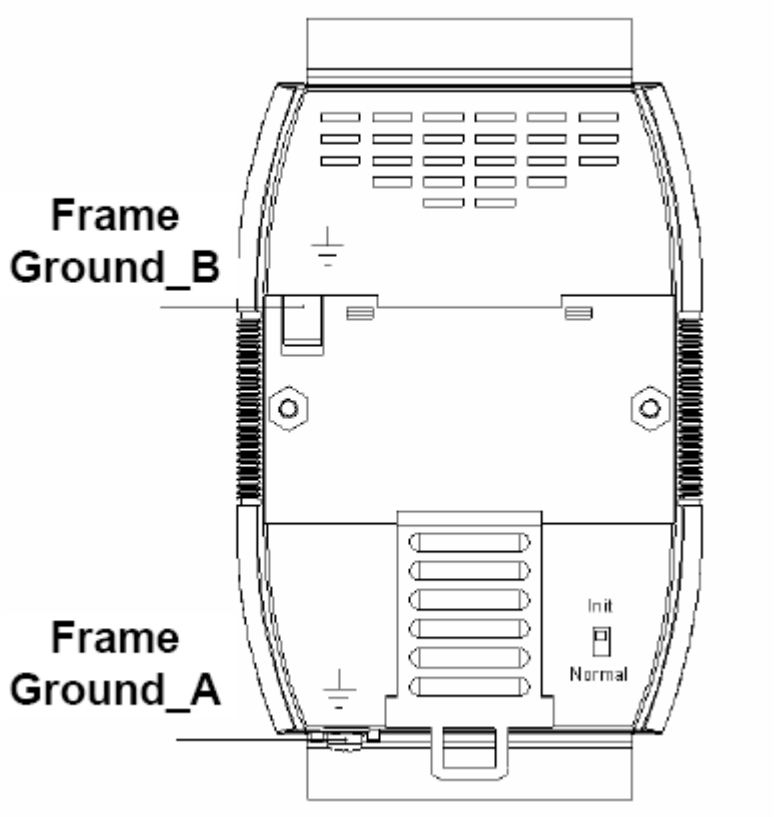


Figure 50 Frame Ground_BFrame Ground_A